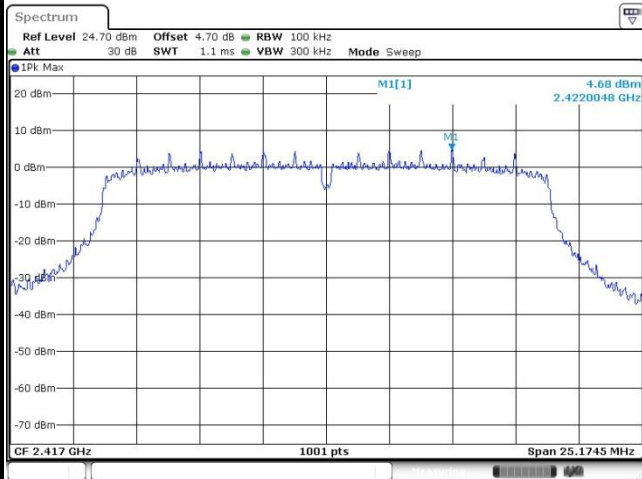




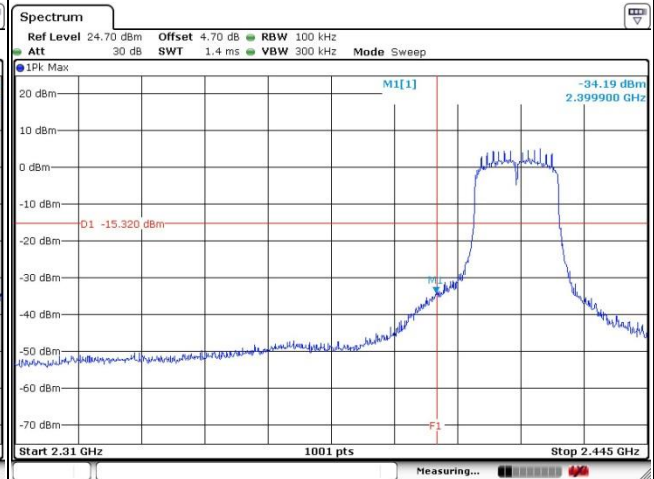
Test Mode : 802.11n HT20

Test Channel : 02

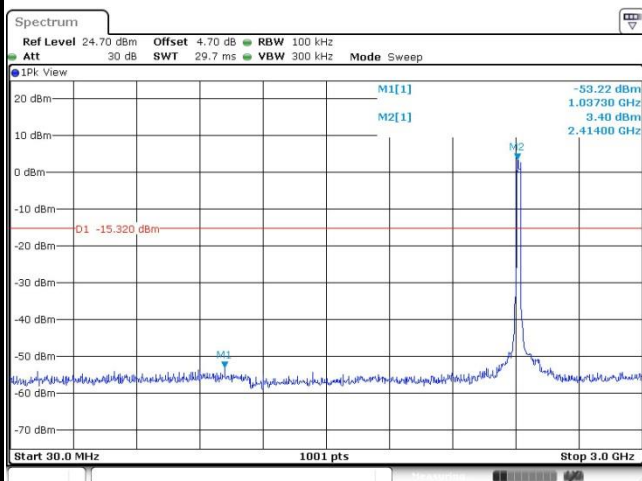
100kHz PSD reference Level



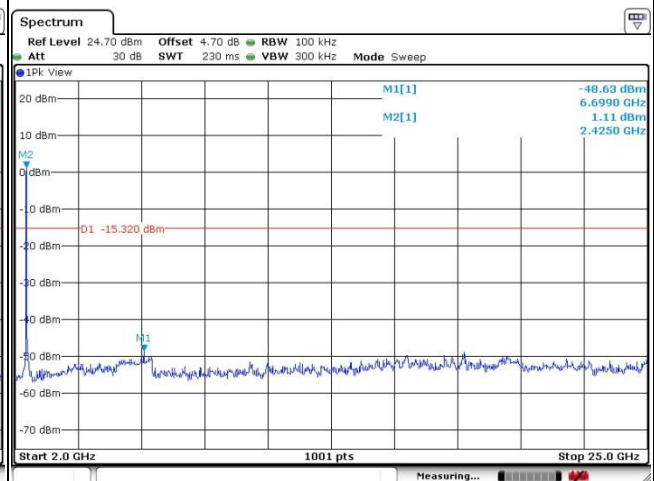
Channel Plot



Spurious Emission 30MHz~3GHz



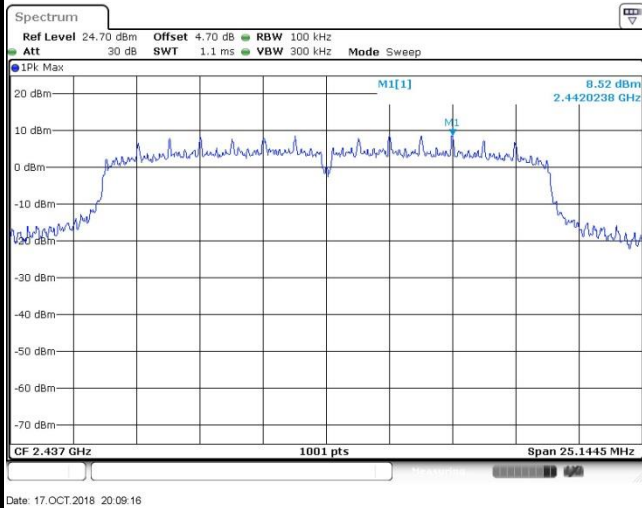
Spurious Emission 2GHz~25GHz



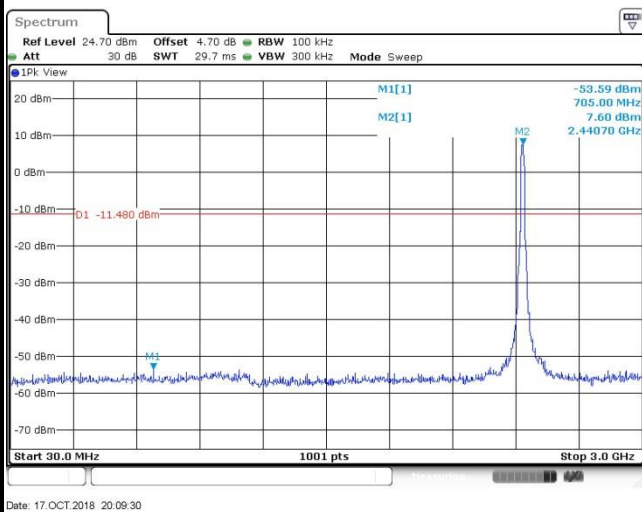


Test Mode :	802.11n HT20	Test Channel :	06
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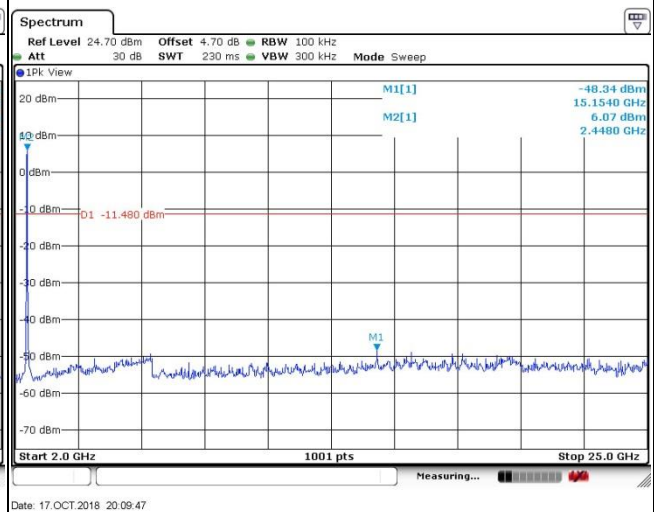
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

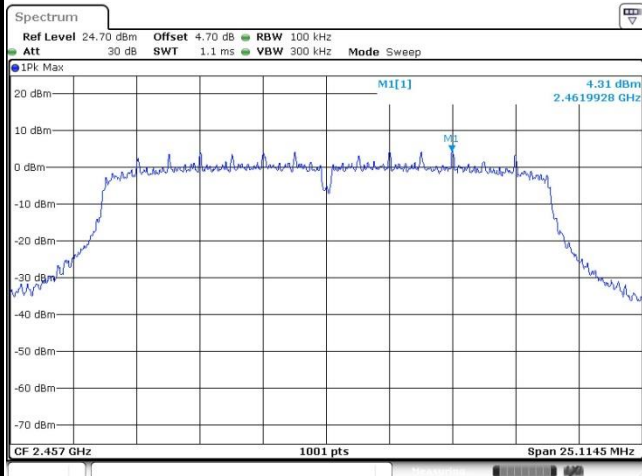




Test Mode : 802.11n HT20

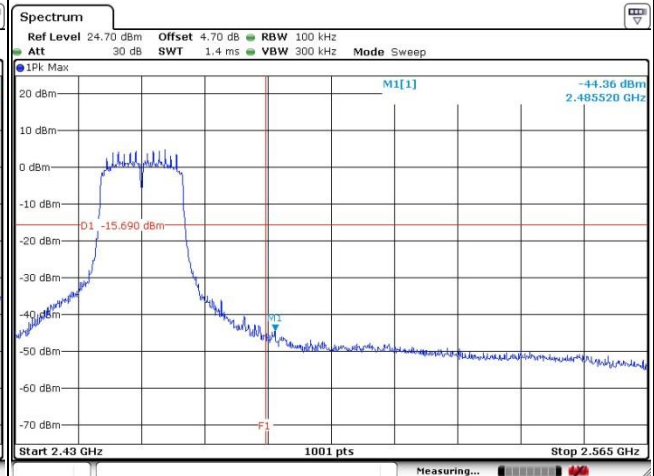
Test Channel : 10

100kHz PSD reference Level



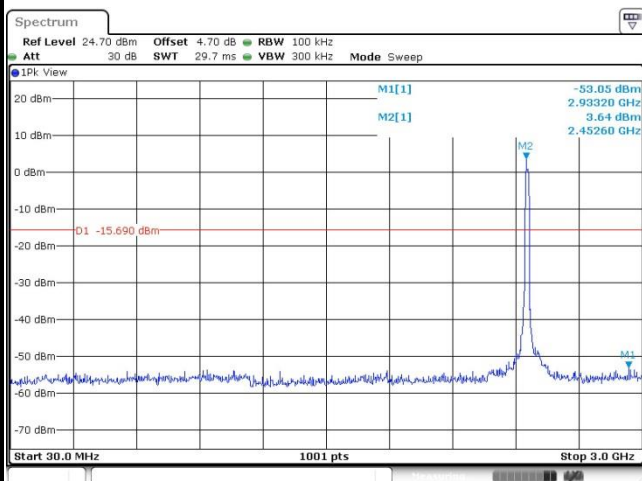
Date: 17.OCT.2018 20:12:26

Channel Plot



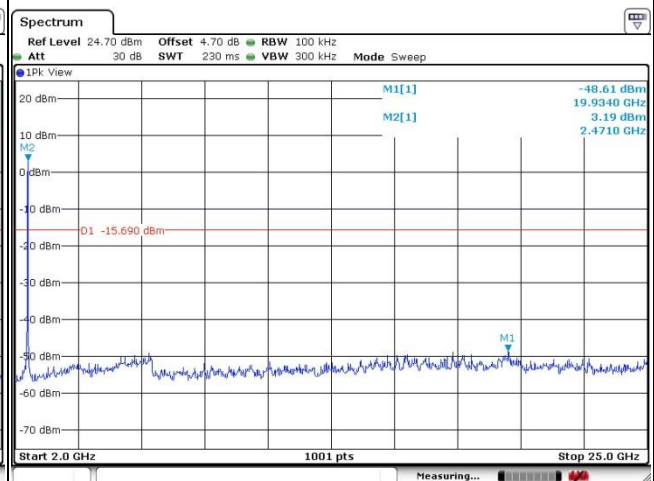
Date: 17.OCT.2018 20:13:11

Spurious Emission 30MHz~3GHz



Date: 17.OCT.2018 20:14:20

Spurious Emission 2GHz~25GHz



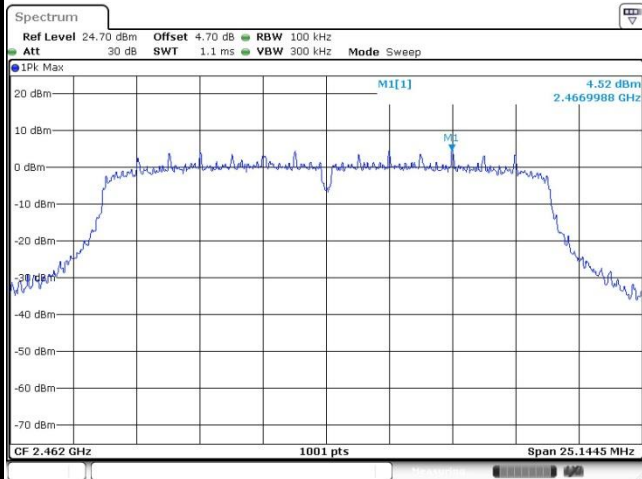
Date: 17.OCT.2018 20:14:09



Test Mode : 802.11n HT20

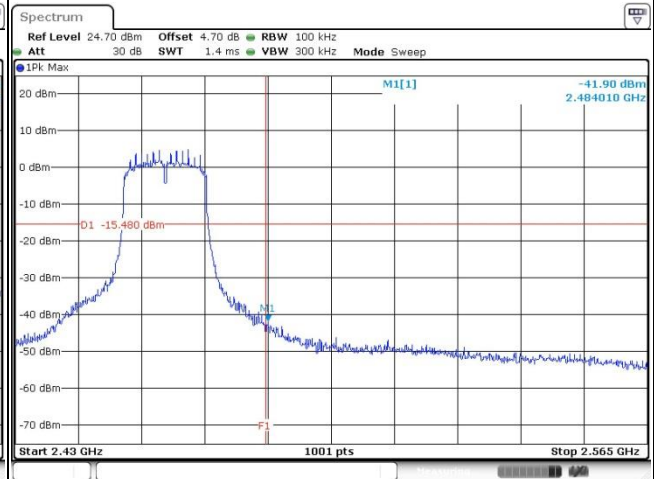
Test Channel : 11

100kHz PSD reference Level



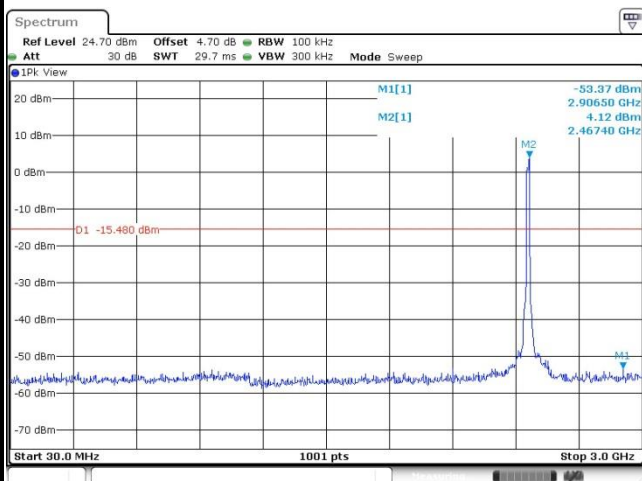
Date: 17.OCT.2018 20:16:37

Channel Plot



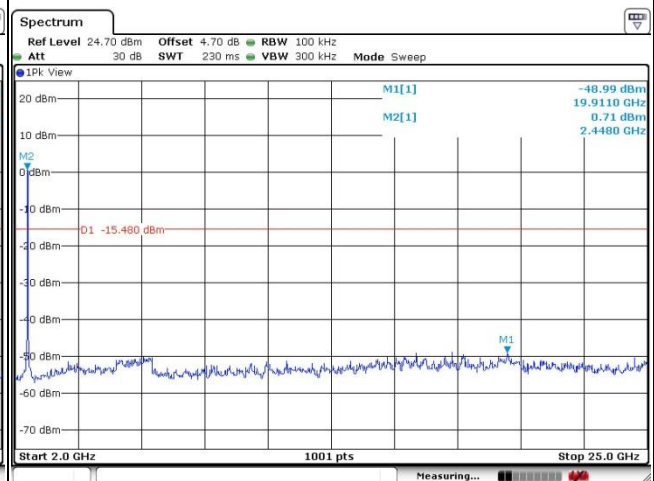
Date: 17.OCT.2018 20:17:00

Spurious Emission 30MHz~3GHz



Date: 17.OCT.2018 20:17:11

Spurious Emission 2GHz~25GHz



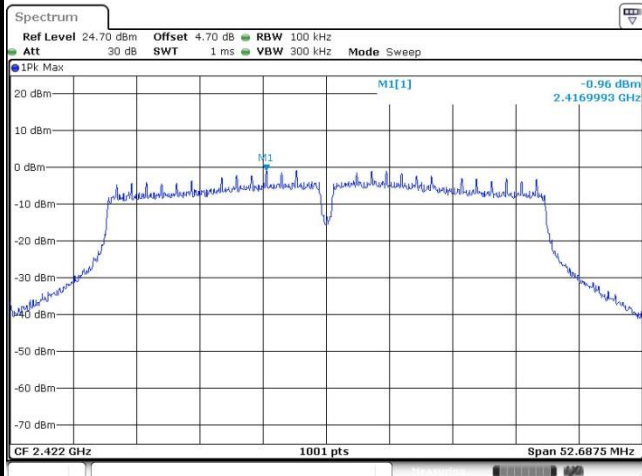
Date: 17.OCT.2018 20:17:27



Test Mode : 802.11n HT40

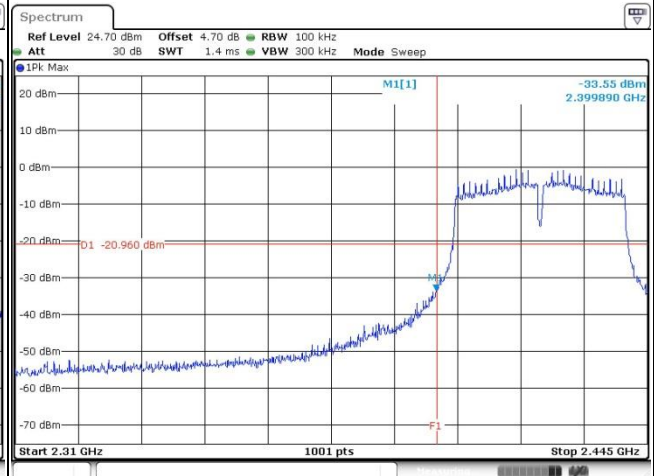
Test Channel : 03

100kHz PSD reference Level



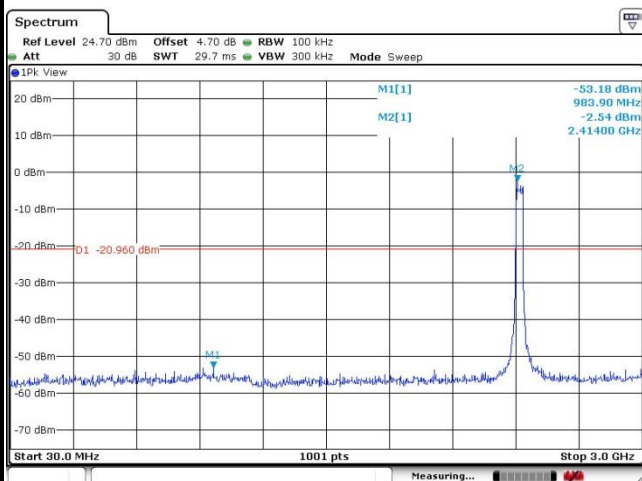
Date: 17.OCT.2018 20:21:35

Channel Plot



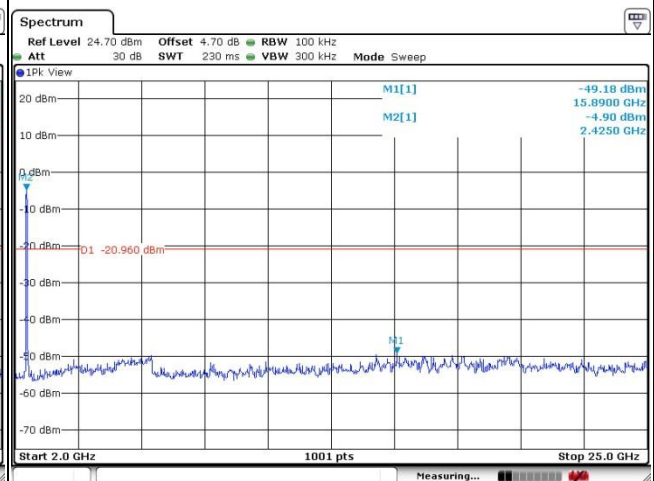
Date: 17.OCT.2018 20:21:52

Spurious Emission 30MHz~3GHz

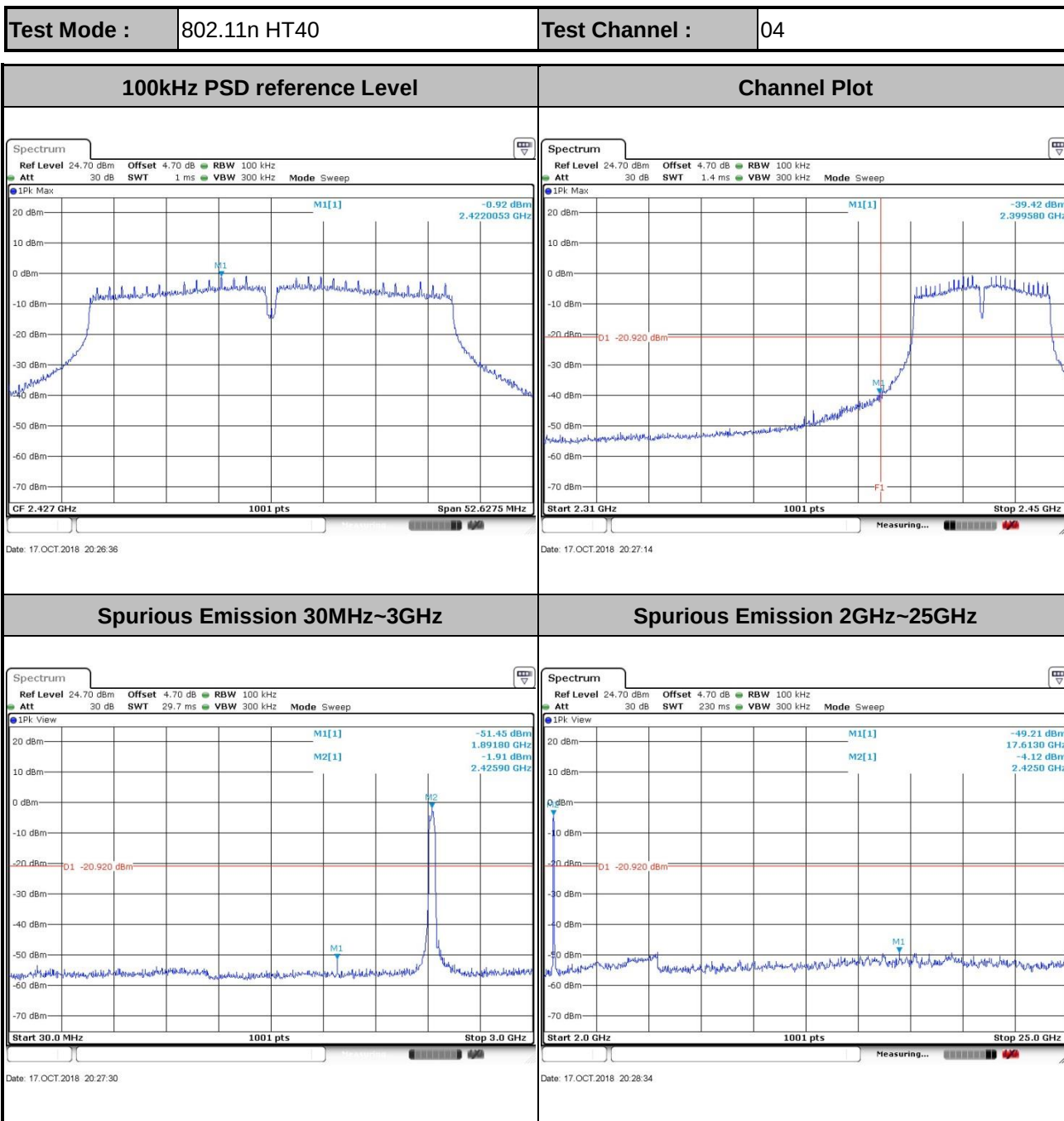


Date: 17.OCT.2018 20:23:04

Spurious Emission 2GHz~25GHz



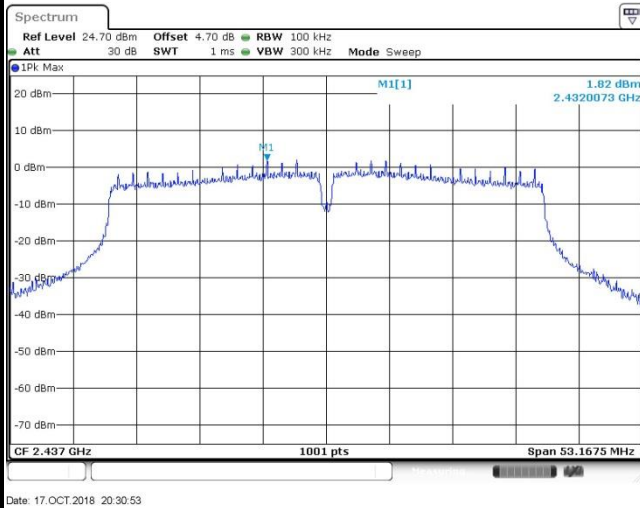
Date: 17.OCT.2018 20:22:35



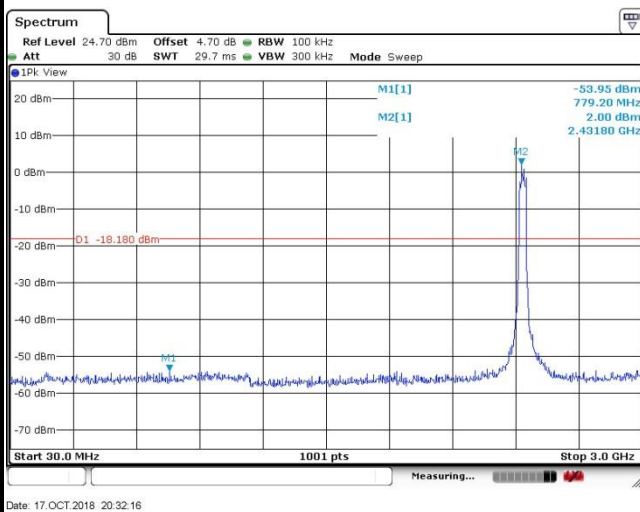


Test Mode :	802.11n HT40	Test Channel :	06
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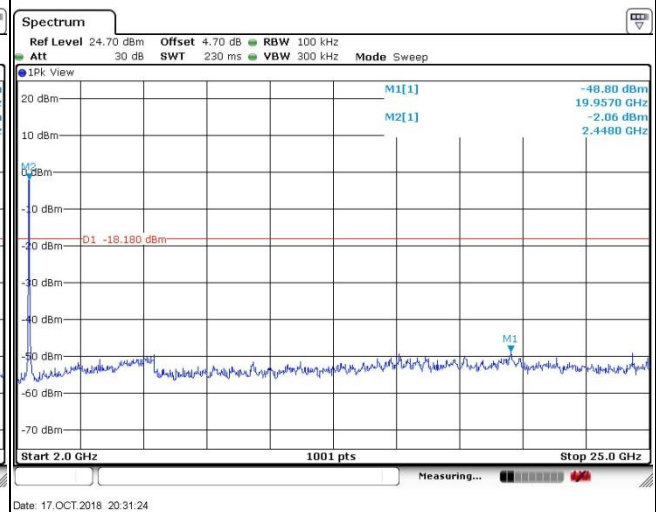
100kHz PSD reference Level



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

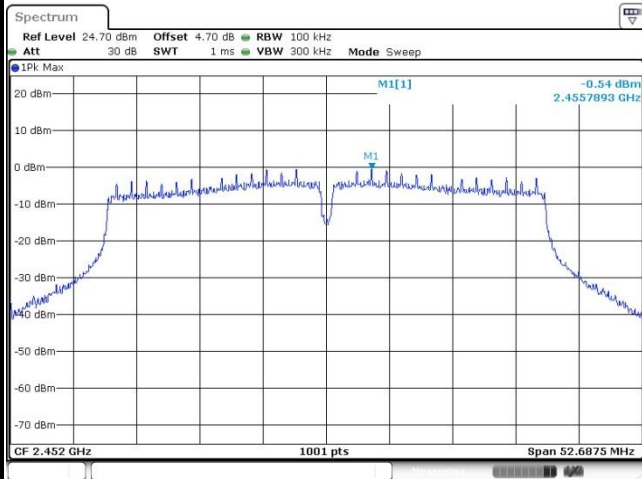




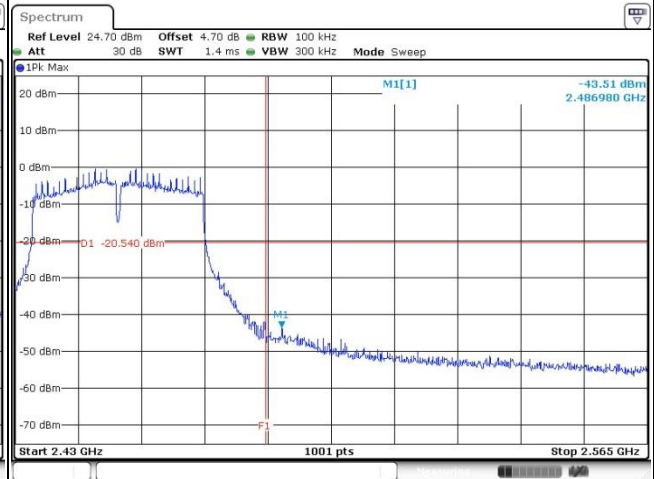
Test Mode : 802.11n HT40

Test Channel : 09

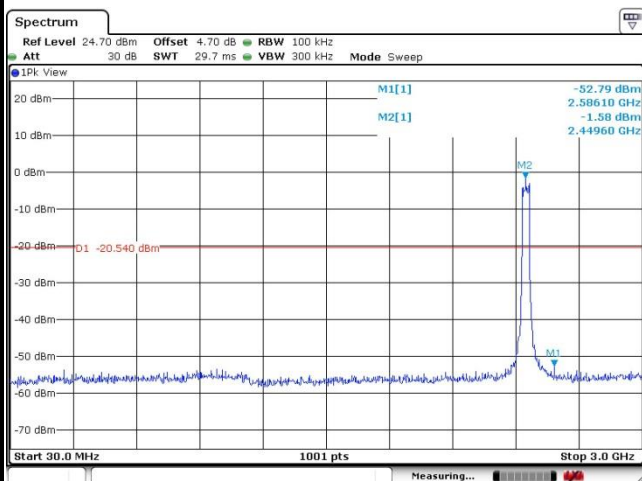
100kHz PSD reference Level



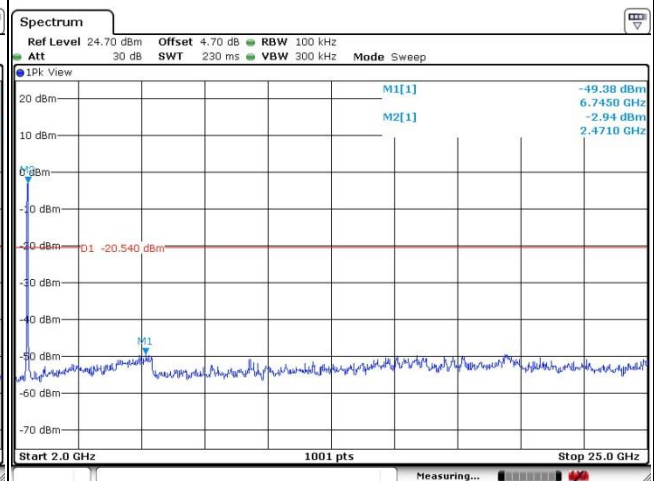
Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz





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

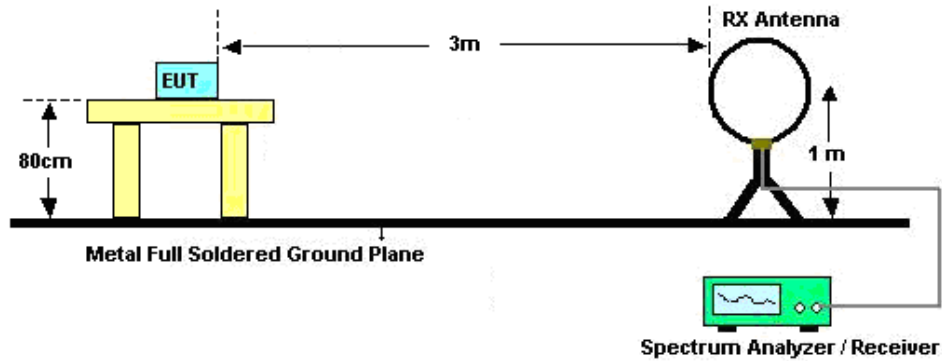
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

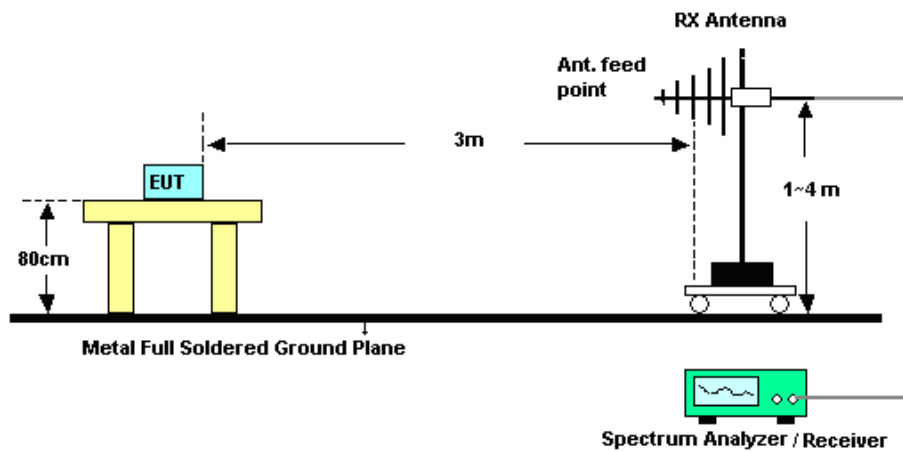
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better 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 $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

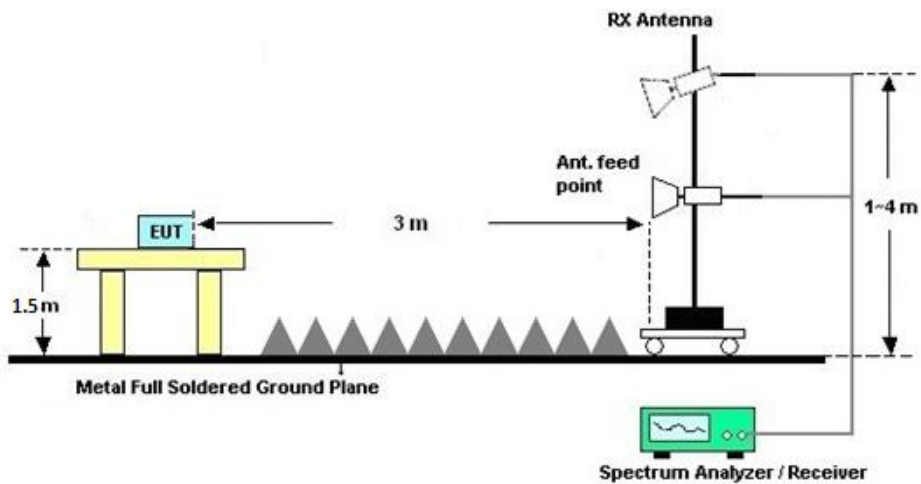
For radiated emissions below 30MHz



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 (dB μ V)	
	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.

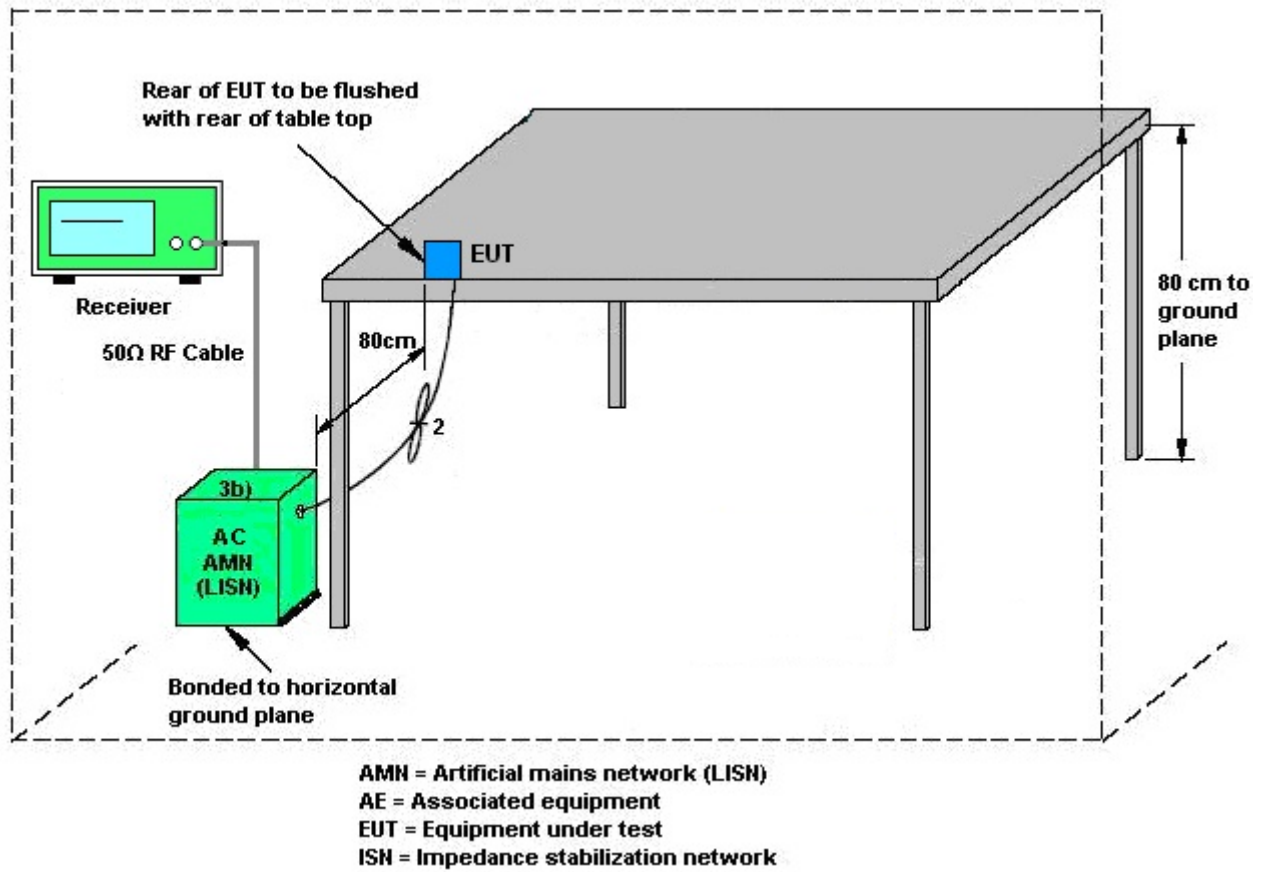
3.6.2 Measuring Instruments

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

<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	Ant. 2	DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	1.23	1.75	1.75	4.50	0.00	0.00

Power Limit Reduction = $DG(\text{Power}) - 6\text{dBi}$, (0dB)

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (0dB)



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	Aug. 07, 2018	Oct. 17, 2018~ Oct. 18, 2018	Aug. 06, 2019	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 18, 2018	Oct. 17, 2018~ Oct. 18, 2018	Jan. 17, 2019	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 18, 2018	Oct. 17, 2018~ Oct. 18, 2018	Jan. 17, 2019	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Aug. 07, 2018	Sep. 27, 2018~ Oct. 11, 2018	Aug. 06, 2019	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 22, 2017	Sep. 27, 2018~ Oct. 11, 2018	Oct. 21, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz~2GHz	Jan. 29, 2018	Sep. 27, 2018~ Oct. 11, 2018	Jan. 28, 2019	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz~1GHz	Aug. 06, 2018	Sep. 27, 2018~ Oct. 11, 2018	Aug. 05, 2019	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH02-KS)
EMI Test Receiver	Keysight	N9038A	MY56400023	3Hz~8.5GHz; Max 30dBm	Oct. 19, 2017	Sep. 27, 2018~ Oct. 11, 2018	Oct. 18, 2018	Radiation (03CH04-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz~44GHz	Oct. 14, 2017	Sep. 27, 2018~ Oct. 11, 2018	Oct. 13, 2018	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1648	1GHz~18GHz	Dec. 16, 2017	Sep. 27, 2018~ Oct. 11, 2018	Dec 15, 2018	Radiation (03CH04-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	Sep. 27, 2018~ Oct. 11, 2018	Feb. 06, 2019	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Dec. 16, 2017	Sep. 27, 2018~ Oct. 11, 2018	Dec. 15, 2018	Radiation (03CH04-KS)
Amplifier	MITEQ	TTA1840-35-HG	2014749	18~40GHz	Feb. 08, 2018	Sep. 27, 2018~ Oct. 11, 2018	Feb. 07, 2019	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Sep. 27, 2018~ Oct. 11, 2018	NCR	Radiation (03CH04-KS)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	NCR	Jul. 11, 2018	NCR	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Jul. 11, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 06, 2018	Jul. 11, 2018	Mar. 05, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Jul. 11, 2018	Nov. 29, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2017	Jul. 11, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	NCR	Jul. 11, 2018	NCR	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Jul. 11, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Jul. 11, 2018	Jan. 02, 2019	Conduction (CO05-HY)

NCR: No Calibration Required



5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz) for CO05-HY

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.7dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH02-KS

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz) for 03CH04-KS

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz) for 03CH04-KS

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0dB
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Appendix A. Conducted Test Results

Report Number : FR860502B

Test Engineer:	Smile Wang	Temperature:	21~25	°C
Test Date:	2018/10/18	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
11b	1Mbps	1	1	2412	12.69	-	7.05	-	0.50	Pass
11b	1Mbps	1	6	2437	12.79	-	7.05	-	0.50	Pass
11b	1Mbps	1	11	2462	12.09	-	7.05	-	0.50	Pass
11g	6Mbps	1	1	2412	17.13	-	16.26	-	0.50	Pass
11g	6Mbps	1	2	2417	17.28	-	16.24	-	0.50	Pass
11g	6Mbps	1	6	2437	22.33	-	16.26	-	0.50	Pass
11g	6Mbps	1	10	2457	18.38	-	16.26	-	0.50	Pass
11g	6Mbps	1	11	2462	17.08	-	16.26	-	0.50	Pass
HT20	MCS0	1	1	2412	18.03	-	16.76	-	0.50	Pass
HT20	MCS0	1	2	2417	18.33	-	16.54	-	0.50	Pass
HT20	MCS0	1	6	2437	22.58	-	16.54	-	0.50	Pass
HT20	MCS0	1	10	2457	18.33	-	16.76	-	0.50	Pass
HT20	MCS0	1	11	2462	18.08	-	16.76	-	0.50	Pass
HT40	MCS0	1	3	2422	36.76	-	35.09	-	0.50	Pass
HT40	MCS0	1	4	2427	36.96	-	35.09	-	0.50	Pass
HT40	MCS0	1	6	2437	37.06	-	35.09	-	0.50	Pass
HT40	MCS0	1	8	2447	37.06	-	35.09	-	0.50	Pass
HT40	MCS0	1	9	2452	36.86	-	35.09	-	0.50	Pass
11b	1Mbps	2	1	2412	11.89	11.54	7.05	7.05	0.50	Pass
11b	1Mbps	2	6	2437	12.74	12.19	7.05	7.07	0.50	Pass
11b	1Mbps	2	11	2462	12.44	12.19	7.05	7.05	0.50	Pass
11g	6Mbps	2	1	2412	17.08	17.03	16.26	16.28	0.50	Pass
11g	6Mbps	2	2	2417	17.18	17.03	16.28	16.30	0.50	Pass
11g	6Mbps	2	6	2437	19.13	18.03	16.26	16.02	0.50	Pass
11g	6Mbps	2	10	2457	17.08	17.03	16.26	16.26	0.50	Pass
11g	6Mbps	2	11	2462	17.18	16.98	16.28	16.06	0.50	Pass
HT20	MCS0	2	1	2412	18.08	18.08	16.88	16.52	0.50	Pass
HT20	MCS0	2	2	2417	18.13	18.13	16.76	16.78	0.50	Pass
HT20	MCS0	2	6	2437	18.83	18.73	16.78	16.76	0.50	Pass
HT20	MCS0	2	10	2457	18.08	18.03	16.90	16.74	0.50	Pass
HT20	MCS0	2	11	2462	18.08	18.13	17.02	16.76	0.50	Pass
HT40	MCS0	2	3	2422	36.86	36.66	35.13	35.13	0.50	Pass
HT40	MCS0	2	4	2427	36.76	36.76	35.09	35.09	0.50	Pass
HT40	MCS0	2	6	2437	36.86	36.66	35.13	35.45	0.50	Pass
HT40	MCS0	2	9	2452	36.86	36.76	35.13	35.13	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	23.35	-	-	30.00	30.00	1.23	1.75	24.58	-	36.00	36.00	Pass
11b	1Mbps	1	6	2437	23.39	-		30.00	30.00	1.23	1.75	24.62	-	36.00	36.00	Pass
11b	1Mbps	1	11	2462	22.77	-		30.00	30.00	1.23	1.75	24.00	-	36.00	36.00	Pass
11g	6Mbps	1	1	2412	22.45	-		30.00	30.00	1.23	1.75	23.68	-	36.00	36.00	Pass
11g	6Mbps	1	2	2417	23.81	-		30.00	30.00	1.23	1.75	25.04	-	36.00	36.00	Pass
11g	6Mbps	1	6	2437	24.93	-		30.00	30.00	1.23	1.75	26.16	-	36.00	36.00	Pass
11g	6Mbps	1	10	2457	24.07	-		30.00	30.00	1.23	1.75	25.30	-	36.00	36.00	Pass
11g	6Mbps	1	11	2462	23.01	-		30.00	30.00	1.23	1.75	24.24	-	36.00	36.00	Pass
HT20	MCS0	1	1	2412	22.26	-		30.00	30.00	1.23	1.75	23.49	-	36.00	36.00	Pass
HT20	MCS0	1	2	2417	24.03	-		30.00	30.00	1.23	1.75	25.26	-	36.00	36.00	Pass
HT20	MCS0	1	6	2437	24.93	-		30.00	30.00	1.23	1.75	26.16	-	36.00	36.00	Pass
HT20	MCS0	1	10	2457	23.73	-		30.00	30.00	1.23	1.75	24.96	-	36.00	36.00	Pass
HT20	MCS0	1	11	2462	22.82	-		30.00	30.00	1.23	1.75	24.05	-	36.00	36.00	Pass
HT40	MCS0	1	3	2422	20.98	-		30.00	30.00	1.23	1.75	22.21	-	36.00	36.00	Pass
HT40	MCS0	1	4	2427	22.03	-		30.00	30.00	1.23	1.75	23.26	-	36.00	36.00	Pass
HT40	MCS0	1	6	2437	23.26	-		30.00	30.00	1.23	1.75	24.49	-	36.00	36.00	Pass
HT40	MCS0	1	8	2447	21.83	-		30.00	30.00	1.23	1.75	23.06	-	36.00	36.00	Pass
HT40	MCS0	1	9	2452	20.98	-		30.00	30.00	1.23	1.75	22.21	-	36.00	36.00	Pass
11b	1Mbps	2	1	2412	21.51	21.74	24.64	30.00		1.75		26.39		36.00		Pass
11b	1Mbps	2	6	2437	23.16	23.19	26.19	30.00		1.75		27.94		36.00		Pass
11b	1Mbps	2	11	2462	22.66	22.67	25.68	30.00		1.75		27.43		36.00		Pass
11g	6Mbps	2	1	2412	22.45	22.89	25.69	30.00		1.75		27.44		36.00		Pass
11g	6Mbps	2	2	2417	23.13	23.18	26.17	30.00		1.75		27.92		36.00		Pass
11g	6Mbps	2	6	2437	23.98	24.08	27.04	30.00		1.75		28.79		36.00		Pass
11g	6Mbps	2	10	2457	22.78	22.85	25.83	30.00		1.75		27.58		36.00		Pass
11g	6Mbps	2	11	2462	23.39	23.15	26.28	30.00		1.75		28.03		36.00		Pass
HT20	MCS0	2	1	2412	21.76	22.03	24.91	30.00		1.75		26.66		36.00		Pass
HT20	MCS0	2	2	2417	23.26	23.26	26.27	30.00		1.75		28.02		36.00		Pass
HT20	MCS0	2	6	2437	24.04	24.11	27.09	30.00		1.75		28.84		36.00		Pass
HT20	MCS0	2	10	2457	23.28	22.95	26.13	30.00		1.75		27.88		36.00		Pass
HT20	MCS0	2	11	2462	23.11	23.02	26.08	30.00		1.75		27.83		36.00		Pass
HT40	MCS0	2	3	2422	20.24	20.76	23.52	30.00		1.75		25.27		36.00		Pass
HT40	MCS0	2	4	2427	20.68	20.65	23.68	30.00		1.75		25.43		36.00		Pass
HT40	MCS0	2	6	2437	22.78	23.01	25.91	30.00		1.75		27.66		36.00		Pass
HT40	MCS0	2	9	2452	20.26	20.59	23.44	30.00		1.75		25.19		36.00		Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	1	1	2412	0.00	-	20.38	-	-
11b	1Mbps	1	6	2437	0.00	-	20.45	-	
11b	1Mbps	1	11	2462	0.00	-	19.79	-	
11g	6Mbps	1	1	2412	0.12	-	14.14	-	
11g	6Mbps	1	2	2417	0.12	-	17.53	-	
11g	6Mbps	1	6	2437	0.12	-	20.41	-	
11g	6Mbps	1	10	2457	0.12	-	18.97	-	
11g	6Mbps	1	11	2462	0.12	-	15.13	-	
HT20	MCS0	1	1	2412	0.13	-	13.57	-	
HT20	MCS0	1	2	2417	0.13	-	17.85	-	
HT20	MCS0	1	6	2437	0.13	-	20.41	-	
HT20	MCS0	1	10	2457	0.13	-	17.66	-	
HT20	MCS0	1	11	2462	0.13	-	14.96	-	
HT40	MCS0	1	3	2422	0.20	-	12.22	-	
HT40	MCS0	1	4	2427	0.20	-	14.25	-	
HT40	MCS0	1	6	2437	0.20	-	15.68	-	
HT40	MCS0	1	8	2447	0.20	-	14.03	-	
HT40	MCS0	1	9	2452	0.20	-	12.62	-	
11b	1Mbps	2	1	2412	0.00	0.00	18.32	18.63	21.49
11b	1Mbps	2	6	2437	0.00	0.00	20.33	20.41	23.38
11b	1Mbps	2	11	2462	0.00	0.00	19.83	19.86	22.86
11g	6Mbps	2	1	2412	0.09	0.09	14.51	14.83	17.69
11g	6Mbps	2	2	2417	0.09	0.09	15.81	15.61	18.72
11g	6Mbps	2	6	2437	0.09	0.09	19.76	19.80	22.79
11g	6Mbps	2	10	2457	0.09	0.09	15.44	15.27	18.37
11g	6Mbps	2	11	2462	0.09	0.09	15.70	15.40	18.57
HT20	MCS0	2	1	2412	0.10	0.10	13.11	13.51	16.32
HT20	MCS0	2	2	2417	0.10	0.10	16.11	15.91	19.02
HT20	MCS0	2	6	2437	0.10	0.10	19.02	19.18	22.11
HT20	MCS0	2	10	2457	0.10	0.10	15.35	15.38	18.37
HT20	MCS0	2	11	2462	0.10	0.10	15.31	15.05	18.19
HT40	MCS0	2	3	2422	0.17	0.17	11.88	12.33	15.12
HT40	MCS0	2	4	2427	0.17	0.17	12.35	12.22	15.29
HT40	MCS0	2	6	2437	0.17	0.17	14.90	15.32	18.12
HT40	MCS0	2	9	2452	0.17	0.17	11.96	12.44	15.21

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	-1.23	-	-	1.23	1.75	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-1.26	-		1.23	1.75	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-1.89	-		1.23	1.75	8.00	8.00	Pass
11g	6Mbps	1	1	2412	-9.57	-		1.23	1.75	8.00	8.00	Pass
11g	6Mbps	1	2	2417	-6.70	-		1.23	1.75	8.00	8.00	Pass
11g	6Mbps	1	6	2437	-4.51	-		1.23	1.75	8.00	8.00	Pass
11g	6Mbps	1	10	2457	-6.16	-		1.23	1.75	8.00	8.00	Pass
11g	6Mbps	1	11	2462	-9.12	-		1.23	1.75	8.00	8.00	Pass
HT20	MCS0	1	1	2412	-9.49	-		1.23	1.75	8.00	8.00	Pass
HT20	MCS0	1	2	2417	-6.64	-		1.23	1.75	8.00	8.00	Pass
HT20	MCS0	1	6	2437	-3.89	-		1.23	1.75	8.00	8.00	Pass
HT20	MCS0	1	10	2457	-7.55	-		1.23	1.75	8.00	8.00	Pass
HT20	MCS0	1	11	2462	-9.81	-		1.23	1.75	8.00	8.00	Pass
HT40	MCS0	1	3	2422	-14.29	-		1.23	1.75	8.00	8.00	Pass
HT40	MCS0	1	4	2427	-13.07	-		1.23	1.75	8.00	8.00	Pass
HT40	MCS0	1	6	2437	-10.43	-		1.23	1.75	8.00	8.00	Pass
HT40	MCS0	1	8	2447	-13.08	-		1.23	1.75	8.00	8.00	Pass
HT40	MCS0	1	9	2452	-13.86	-		1.23	1.75	8.00	8.00	Pass
11b	1Mbps	2	1	2412	-2.83	-2.79	0.22	4.50		8.00		Pass
11b	1Mbps	2	6	2437	-1.42	-1.08	1.93	4.50		8.00		Pass
11b	1Mbps	2	11	2462	-2.08	-1.77	1.24	4.50		8.00		Pass
11g	6Mbps	2	1	2412	-9.10	-9.14	-6.09	4.50		8.00		Pass
11g	6Mbps	2	2	2417	-9.46	-9.90	-6.45	4.50		8.00		Pass
11g	6Mbps	2	6	2437	-5.10	-4.44	-1.43	4.50		8.00		Pass
11g	6Mbps	2	10	2457	-9.86	-9.40	-6.39	4.50		8.00		Pass
11g	6Mbps	2	11	2462	-8.37	-9.77	-5.36	4.50		8.00		Pass
HT20	MCS0	2	1	2412	-10.22	-11.53	-7.21	4.50		8.00		Pass
HT20	MCS0	2	2	2417	-8.97	-10.15	-5.96	4.50		8.00		Pass
HT20	MCS0	2	6	2437	-5.63	-6.40	-2.62	4.50		8.00		Pass
HT20	MCS0	2	10	2457	-8.83	-9.49	-5.82	4.50		8.00		Pass
HT20	MCS0	2	11	2462	-9.58	-8.94	-5.93	4.50		8.00		Pass
HT40	MCS0	2	3	2422	-14.05	-15.61	-11.04	4.50		8.00		Pass
HT40	MCS0	2	4	2427	-14.24	-15.41	-11.23	4.50		8.00		Pass
HT40	MCS0	2	6	2437	-12.78	-12.35	-9.34	4.50		8.00		Pass
HT40	MCS0	2	9	2452	-15.54	-14.62	-11.61	4.50		8.00		Pass

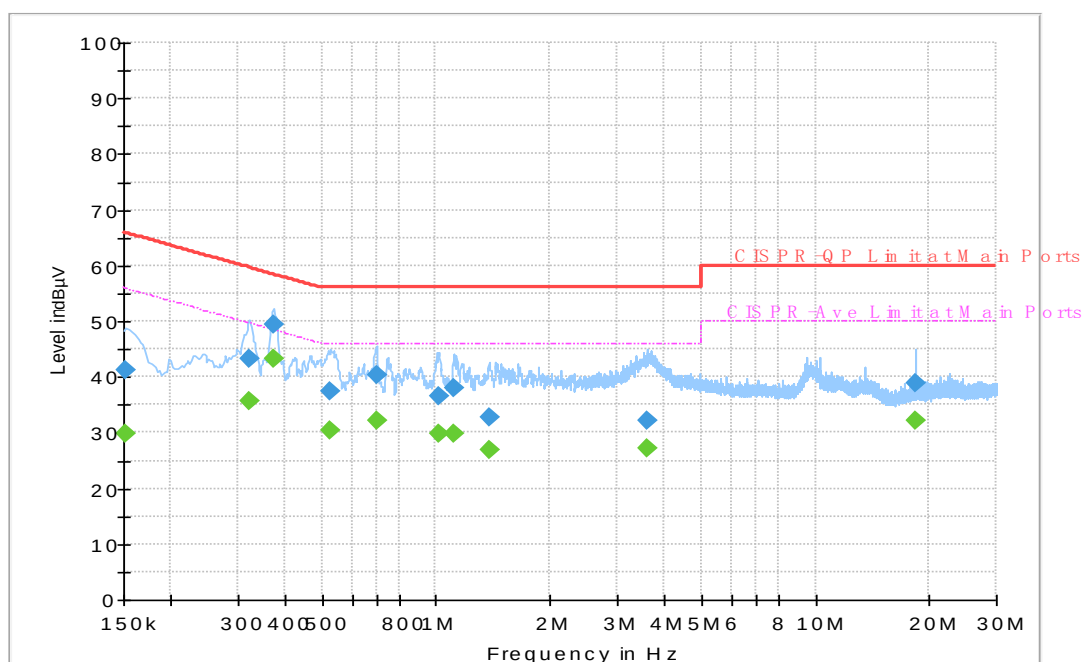
Measured power density (dBm) has offset with cable loss.



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Kai-Chun Chu	Temperature :	25~26°C
		Relative Humidity :	52~54%
Test Voltage :	120Vac / 60Hz	Phase :	Line

Full Spectrum



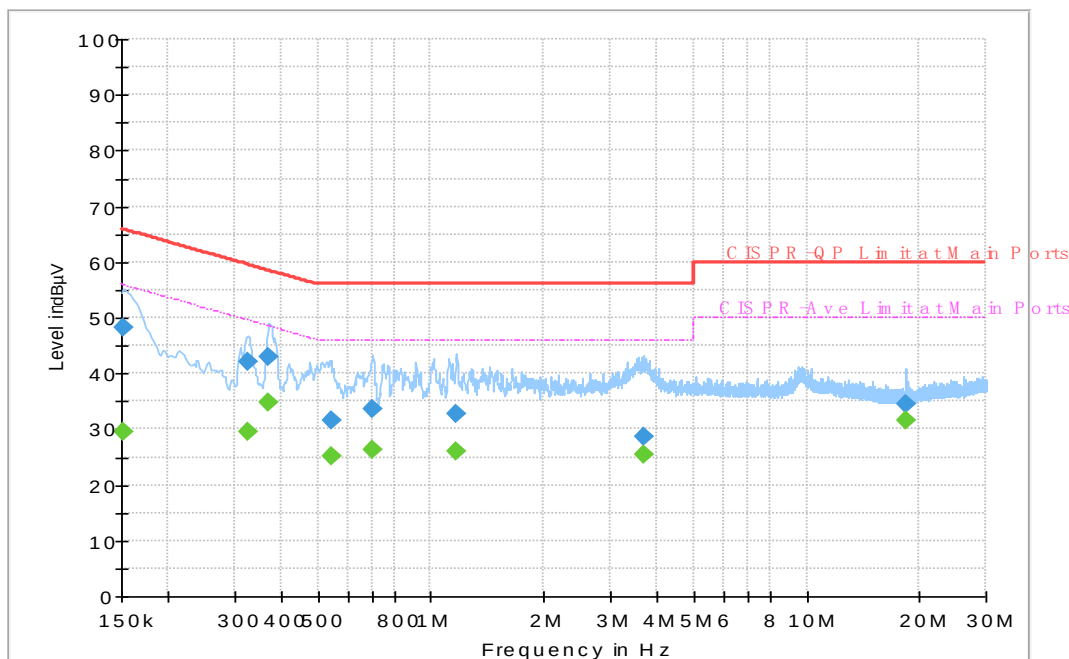
Final Result

Frequency (MHz)	Quasi-Peak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.72	55.88	26.16	L1	OFF	19.5
0.152250	41.09	---	65.88	24.79	L1	OFF	19.5
0.321000	---	35.80	49.68	13.88	L1	OFF	19.5
0.321000	43.21	---	59.68	16.47	L1	OFF	19.5
0.372750	---	43.37	48.44	5.07	L1	OFF	19.5
0.372750	49.40	---	58.44	9.04	L1	OFF	19.5
0.528000	---	30.30	46.00	15.70	L1	OFF	19.5
0.528000	37.34	---	56.00	18.66	L1	OFF	19.5
0.694500	---	32.25	46.00	13.75	L1	OFF	19.6
0.694500	40.49	---	56.00	15.51	L1	OFF	19.6
1.016250	---	29.90	46.00	16.10	L1	OFF	19.6
1.016250	36.65	---	56.00	19.35	L1	OFF	19.6
1.113000	---	29.88	46.00	16.12	L1	OFF	19.6
1.113000	37.99	---	56.00	18.01	L1	OFF	19.6
1.376250	---	26.97	46.00	19.03	L1	OFF	19.6
1.376250	32.63	---	56.00	23.37	L1	OFF	19.6
3.619500	---	27.08	46.00	18.92	L1	OFF	19.7
3.619500	32.23	---	56.00	23.77	L1	OFF	19.7
18.429000	---	32.04	50.00	17.96	L1	OFF	20.2
18.429000	38.79	---	60.00	21.21	L1	OFF	20.2



Test Engineer :	Kai-Chun Chu	Temperature :	25~26°C
		Relative Humidity :	52~54%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral

Full Spectrum



Final Result

Frequency (MHz)	Quasi-Peak (dBμV)	C Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.54	55.88	26.34	N	OFF	19.5
0.152250	48.32	---	65.88	17.56	N	OFF	19.5
0.325500	---	29.51	49.57	20.06	N	OFF	19.5
0.325500	42.08	---	59.57	17.49	N	OFF	19.5
0.370500	---	34.67	48.49	13.82	N	OFF	19.5
0.370500	43.11	---	58.49	15.38	N	OFF	19.5
0.541500	---	25.23	46.00	20.77	N	OFF	19.5
0.541500	31.69	---	56.00	24.31	N	OFF	19.5
0.696750	---	26.33	46.00	19.67	N	OFF	19.6
0.696750	33.58	---	56.00	22.42	N	OFF	19.6
1.169250	---	25.98	46.00	20.02	N	OFF	19.6
1.169250	32.74	---	56.00	23.26	N	OFF	19.6
3.666750	---	25.33	46.00	20.67	N	OFF	19.7
3.666750	28.79	---	56.00	27.21	N	OFF	19.7
18.431250	---	31.59	50.00	18.41	N	OFF	20.3
18.431250	34.55	---	60.00	25.45	N	OFF	20.3



Appendix C. Radiated Spurious Emission

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2363.69	61.3	-12.7	74	58.58	31.25	5.61	34.14	147	119	P	H
		2382.67	52.37	-1.63	54	49.61	31.27	5.63	34.14	147	119	A	H
	*	2412	112.25	-	-	109.41	31.33	5.67	34.16	147	119	P	H
	*	2412	109	-	-	106.16	31.33	5.67	34.16	147	119	A	H
		2382.93	56.47	-17.53	74	53.71	31.27	5.63	34.14	110	32	P	V
		2382.54	47.74	-6.26	54	44.98	31.27	5.63	34.14	110	32	A	V
	*	2412	108.29	-	-	105.45	31.33	5.67	34.16	110	32	P	V
	*	2412	105.04	-	-	102.2	31.33	5.67	34.16	110	32	A	V
802.11b CH 11 2462MHz	*	2462	111.87	-	-	108.98	31.41	5.73	34.25	100	115	P	H
	*	2462	108.66	-	-	105.77	31.41	5.73	34.25	100	115	A	H
		2489.74	60.76	-13.24	74	57.82	31.47	5.77	34.3	100	115	P	H
		2490.58	52.78	-1.22	54	49.84	31.47	5.77	34.3	100	115	A	H
	*	2462	108.1	-	-	105.21	31.41	5.73	34.25	117	32	P	V
	*	2464	104.53	-	-	101.64	31.41	5.73	34.25	117	32	A	V
		2484.16	57.06	-16.94	74	54.15	31.44	5.75	34.28	117	32	P	V
		2490.46	48.74	-5.26	54	45.8	31.47	5.77	34.3	117	32	A	V



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		4824	47.22	-26.78	74	68.24	35.65	7.86	64.53	100	360	P	H
CH 01 2412MHz		4824	42.01	-31.99	74	63.03	35.65	7.86	64.53	100	360	P	V
802.11b		4872	46.48	-27.52	74	67.57	35.61	7.9	64.6	100	360	P	H
CH 06		7308	47.34	-26.66	74	66.96	35.89	9.5	65.01	100	360	P	H
2437MHz		4872	43.49	-30.51	74	64.58	35.61	7.9	64.6	100	360	P	V
		7308	40.79	-33.21	74	60.41	35.89	9.5	65.01	100	360	P	V
802.11b		4926	45.47	-28.53	74	66.64	35.57	7.94	64.68	100	360	P	H
CH 11		7386	44.84	-29.16	74	64.42	35.94	9.53	65.05	100	360	P	H
2462MHz		4926	41.76	-32.24	74	62.93	35.57	7.94	64.68	100	360	P	V
		7386	40.44	-33.56	74	60.02	35.94	9.53	65.05	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	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	67.84	-6.16	74	65.03	31.3	5.65	34.14	147	119	P	H
		2389.82	52.74	-1.26	54	49.93	31.3	5.65	34.14	147	119	A	H
	*	2408	108.03	-	-	105.19	31.33	5.67	34.16	147	119	P	H
	*	2410	100.05	-	-	97.21	31.33	5.67	34.16	147	119	A	H
		2389.82	61.8	-12.2	74	58.99	31.3	5.65	34.14	135	215	P	V
		2389.95	48.46	-5.54	54	45.65	31.3	5.65	34.14	135	215	A	V
	*	2416	104.59	-	-	101.75	31.33	5.67	34.16	135	215	P	V
	*	2410	96.77	-	-	93.93	31.33	5.67	34.16	135	215	A	V
802.11g CH 11 2462MHz	*	2460	109.35	-	-	106.46	31.41	5.73	34.25	100	121	P	H
	*	2460	100.97	-	-	98.08	31.41	5.73	34.25	100	121	A	H
		2484.16	70.78	-3.22	74	67.87	31.44	5.75	34.28	100	121	P	H
		2483.51	52.88	-1.12	54	49.97	31.44	5.75	34.28	100	121	A	H
	*	2464	104.45	-	-	101.56	31.41	5.73	34.25	117	33	P	V
	*	2464	96.87	-	-	93.98	31.41	5.73	34.25	117	33	A	V
		2483.86	65.52	-8.48	74	62.61	31.44	5.75	34.28	117	33	P	V
		2483.5	49.04	-4.96	54	46.13	31.44	5.75	34.28	117	33	A	V



2.4GHz 2400~2483.5MHz

WIFI 802.11g (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)
802.11g		4824	42.64	-31.36	74	63.66	35.65	7.86	64.53	100	360	P	H
CH 01 2412MHz		4824	44.05	-29.95	74	65.07	35.65	7.86	64.53	100	360	P	V
802.11g		4872	44.38	-29.62	74	65.47	35.61	7.9	64.6	100	360	P	H
CH 06 2437MHz		7308	45.78	-28.22	74	65.4	35.89	9.5	65.01	100	360	P	H
		4872	41.67	-32.33	74	62.76	35.61	7.9	64.6	100	360	P	V
		7308	42.76	-31.24	74	62.38	35.89	9.5	65.01	100	360	P	V
802.11g		4926	42.3	-31.7	74	63.47	35.57	7.94	64.68	100	360	P	H
CH 11 2462MHz		7386	41.66	-32.34	74	61.24	35.94	9.53	65.05	100	360	P	H
		4926	41.67	-32.33	74	62.84	35.57	7.94	64.68	100	360	P	V
		7386	41.61	-32.39	74	61.19	35.94	9.53	65.05	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	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		2389.95	67.67	-6.33	74	64.86	31.3	5.65	34.14	147	118	P	H
		2389.95	52.69	-1.31	54	49.88	31.3	5.65	34.14	147	118	A	H
	*	2410	107.87	-	-	105.03	31.33	5.67	34.16	147	118	P	H
	*	2410	99.36	-	-	96.52	31.33	5.67	34.16	147	118	A	H
		2388.13	60.19	-13.81	74	57.38	31.3	5.65	34.14	134	214	P	V
		2389.95	47.88	-6.12	54	45.07	31.3	5.65	34.14	134	214	A	V
	*	2412	104.41	-	-	101.57	31.33	5.67	34.16	134	214	P	V
	*	2410	96.21	-	-	93.37	31.33	5.67	34.16	134	214	A	V
802.11n HT20 CH 11 2462MHz	*	2460	108.35	-	-	105.46	31.41	5.73	34.25	100	119	P	H
	*	2460	100.38	-	-	97.49	31.41	5.73	34.25	100	119	A	H
		2483.98	71.08	-2.92	74	68.17	31.44	5.75	34.28	100	119	P	H
		2483.92	52.93	-1.07	54	50.02	31.44	5.75	34.28	100	119	A	H
	*	2466	104.69	-	-	101.8	31.41	5.73	34.25	117	34	P	V
	*	2464	96.42	-	-	93.53	31.41	5.73	34.25	117	34	A	V
		2484.34	65.07	-8.93	74	62.16	31.44	5.75	34.28	117	34	P	V
		2483.5	48.66	-5.34	54	45.75	31.44	5.75	34.28	117	34	A	V



2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (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)
802.11n HT20 CH 01 2412MHz		4824	43.64	-30.36	74	64.66	35.65	7.86	64.53	100	360	P	H
		4824	42.63	-31.37	74	63.65	35.65	7.86	64.53	100	360	P	V
802.11n HT20 CH 06 2437MHz		4872	43.89	-30.11	74	64.98	35.61	7.9	64.6	100	360	P	H
		7308	42.79	-31.21	74	62.41	35.89	9.5	65.01	100	360	P	H
		4872	42.43	-31.57	74	63.52	35.61	7.9	64.6	100	360	P	V
		7308	42.16	-31.84	74	61.78	35.89	9.5	65.01	100	360	P	V
802.11n HT20 CH 11 2462MHz		4926	41.98	-32.02	74	63.15	35.57	7.94	64.68	100	360	P	H
		7386	41.21	-32.79	74	60.79	35.94	9.53	65.05	100	360	P	H
		4926	41.7	-32.3	74	62.87	35.57	7.94	64.68	100	360	P	V
		7386	41.54	-32.46	74	61.12	35.94	9.53	65.05	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	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 HT40 CH 03 2422MHz		2385.53	63.49	-10.51	74	60.68	31.3	5.65	34.14	336	121	P	H
		2389.95	52.49	-1.51	54	49.68	31.3	5.65	34.14	336	121	A	H
	*	2420	102.68	-	-	99.82	31.36	5.69	34.19	336	121	P	H
	*	2426	94.48	-	-	91.62	31.36	5.69	34.19	336	121	A	H
		2485.42	56.74	-17.26	74	53.83	31.44	5.75	34.28	336	121	P	H
		2486.2	46.18	-7.82	54	43.27	31.44	5.75	34.28	336	121	A	H
		2389.69	60.84	-13.16	74	58.03	31.3	5.65	34.14	137	23	P	V
		2389.43	50.41	-3.59	54	47.6	31.3	5.65	34.14	137	23	A	V
	*	2420	98.66	-	-	95.8	31.36	5.69	34.19	137	23	P	V
	*	2424	90.79	-	-	87.93	31.36	5.69	34.19	137	23	A	V
		2484.4	55.65	-18.35	74	52.74	31.44	5.75	34.28	137	23	P	V
		2486.08	45.05	-8.95	54	42.14	31.44	5.75	34.28	137	23	A	V
802.11n HT40 CH 06 2437MHz		2389.04	62.82	-11.18	74	60.01	31.3	5.65	34.14	304	93	P	H
		2389.82	52.73	-1.27	54	49.92	31.3	5.65	34.14	304	93	A	H
	*	2440	105.17	-	-	102.29	31.39	5.71	34.22	304	93	P	H
	*	2434	97.42	-	-	94.56	31.36	5.69	34.19	304	93	A	H
		2483.5	64.97	-9.03	74	62.06	31.44	5.75	34.28	304	93	P	H
		2483.5	52.39	-1.61	54	49.48	31.44	5.75	34.28	304	93	A	H
		2389.17	60.24	-13.76	74	57.43	31.3	5.65	34.14	158	24	P	V
		2389.95	48.35	-5.65	54	45.54	31.3	5.65	34.14	158	24	A	V
	*	2442	102.07	-	-	99.19	31.39	5.71	34.22	158	24	P	V
	*	2440	94.4	-	-	91.52	31.39	5.71	34.22	158	24	A	V
		2483.8	61.96	-12.04	74	59.05	31.44	5.75	34.28	158	24	P	V
		2483.56	49.87	-4.13	54	46.96	31.44	5.75	34.28	158	24	A	V



802.11n HT40 CH 09 2452MHz		2385.53	56.3	-17.7	74	53.49	31.3	5.65	34.14	100	354	P	H
		2384.88	45.76	-8.24	54	43	31.27	5.63	34.14	100	354	A	H
	*	2450	102.4	-	-	99.52	31.39	5.71	34.22	100	354	P	H
	*	2456	94.68	-	-	91.79	31.41	5.73	34.25	100	354	A	H
		2488.42	66.41	-7.59	74	63.47	31.47	5.77	34.3	100	354	P	H
		2486.5	51.68	-2.32	54	48.77	31.44	5.75	34.28	100	354	A	H
		2387.61	54.71	-19.29	74	51.9	31.3	5.65	34.14	113	24	P	V
		2389.82	44.16	-9.84	54	41.35	31.3	5.65	34.14	113	24	A	V
	*	2458	99.56	-	-	96.67	31.41	5.73	34.25	113	24	P	V
	*	2454	92.27	-	-	89.38	31.41	5.73	34.25	113	24	A	V
		2488.12	64.29	-9.71	74	61.35	31.47	5.77	34.3	113	24	P	V
		2486.74	49.2	-4.8	54	46.29	31.44	5.75	34.28	113	24	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	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	42.54	-31.46	74	63.59	35.63	7.87	64.55	100	360	P	H
HT40		7266	41.02	-32.98	74	60.66	35.87	9.48	64.99	100	360	P	H
CH 03		4842	43.71	-30.29	74	64.76	35.63	7.87	64.55	100	360	P	V
2422MHz		7266	41.81	-32.19	74	61.45	35.87	9.48	64.99	100	360	P	V
802.11n		4872	42.36	-31.64	74	63.45	35.61	7.9	64.6	100	360	P	H
HT40		7308	41.82	-32.18	74	61.44	35.89	9.5	65.01	100	360	P	H
CH 06		4872	42.79	-31.21	74	63.88	35.61	7.9	64.6	100	360	P	V
2437MHz		7308	42.28	-31.72	74	61.9	35.89	9.5	65.01	100	360	P	V
802.11n		4902	43.04	-30.96	74	64.18	35.58	7.93	64.65	100	360	P	H
HT40		7356	42.55	-31.45	74	62.14	35.92	9.52	65.03	100	360	P	H
CH 09		4902	42.02	-31.98	74	63.16	35.58	7.93	64.65	100	360	P	V
2452MHz		7356	43.15	-30.85	74	62.74	35.92	9.52	65.03	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

Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		30	23.18	-16.82	40	29.98	24.5	0.61	31.91	-	-	P	H
		134.76	20.79	-22.71	43.5	33.85	17.43	1.18	31.67	-	-	P	H
		263.77	30.42	-15.58	46	40.62	19.19	1.76	31.15	-	-	P	H
		672.14	31.84	-14.16	46	33.53	24.52	2.6	28.81	-	-	P	H
		710.94	33.87	-12.13	46	35.02	24.73	2.67	28.55	-	-	P	H
		773.02	35.54	-10.46	46	35.43	25.47	2.8	28.16	100	20	P	H
		30.97	22.96	-17.04	40	30.32	23.93	0.61	31.9	-	-	P	V
		262.8	28.29	-17.71	46	38.47	19.21	1.76	31.15	-	-	P	V
		429.64	26.65	-19.35	46	32.76	22.08	2.09	30.28	-	-	P	V
		539.25	30.11	-15.89	46	33.67	23.63	2.45	29.64	-	-	P	V
		710.94	31	-15	46	32.15	24.73	2.67	28.55	-	-	P	V
		773.02	32.06	-13.94	46	31.95	25.47	2.8	28.16	100	214	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2363.69	57.88	-16.12	74	55.16	31.25	5.61	34.14	272	136	P	H
		2385.4	49.26	-4.74	54	46.5	31.27	5.63	34.14	272	136	A	H
	*	2412	112.62	-	-	109.78	31.33	5.67	34.16	272	136	P	H
	*	2412	109.33	-	-	106.49	31.33	5.67	34.16	272	136	A	H
		2367.2	54.98	-19.02	74	52.26	31.25	5.61	34.14	136	211	P	V
		2389.56	45.35	-8.65	54	42.54	31.3	5.65	34.14	136	211	A	V
	*	2414	107.44	-	-	104.6	31.33	5.67	34.16	136	211	P	V
	*	2414	104.37	-	-	101.53	31.33	5.67	34.16	136	211	A	V
802.11b CH 11 2462MHz	*	2464	113.41	-	-	110.52	31.41	5.73	34.25	261	129	P	H
	*	2464	110.42	-	-	107.53	31.41	5.73	34.25	261	129	A	H
		2489.5	60.88	-13.12	74	57.94	31.47	5.77	34.3	261	129	P	H
		2490.34	52.81	-1.19	54	49.87	31.47	5.77	34.3	261	129	A	H
	*	2464	108.1	-	-	105.21	31.41	5.73	34.25	101	214	P	V
	*	2460	105.26	-	-	102.37	31.41	5.73	34.25	101	214	A	V
		2490.82	58.1	-15.9	74	55.16	31.47	5.77	34.3	101	214	P	V
		2490.4	50.75	-3.25	54	47.81	31.47	5.77	34.3	101	214	A	V



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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b		4824	46.76	-27.24	74	67.78	35.65	7.86	64.53	100	360	P	H
CH 01		4824	53.36	-20.64	74	74.38	35.65	7.86	64.53	210	171	P	V
2412MHz		4824	52.19	-1.81	54	73.21	35.65	7.86	64.53	210	171	A	V
802.11b		4872	47.74	-26.26	74	68.83	35.61	7.9	64.6	100	360	P	H
CH 06		7308	41.57	-32.43	74	61.19	35.89	9.5	65.01	100	360	P	H
2437MHz		4872	50.49	-23.51	74	71.58	35.61	7.9	64.6	100	360	P	V
		7308	42.4	-31.6	74	62.02	35.89	9.5	65.01	100	360	P	V
802.11b		4926	48.86	-25.14	74	70.03	35.57	7.94	64.68	100	360	P	H
CH 11		7386	42.64	-31.36	74	62.22	35.94	9.53	65.05	100	360	P	H
2462MHz		4926	51.78	-22.22	74	72.95	35.57	7.94	64.68	100	360	P	V
		4926	40.55	-13.45	54	61.72	35.57	7.94	64.68	199	137	A	V
		7386	43.38	-30.62	74	62.96	35.94	9.53	65.05	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	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		2387.35	69.38	-4.62	74	66.57	31.3	5.65	34.14	270	134	P	H
		2389.95	52.17	-1.83	54	49.36	31.3	5.65	34.14	270	134	A	H
	*	2408	111.42	-	-	108.58	31.33	5.67	34.16	270	134	P	H
	*	2408	103.52	-	-	100.68	31.33	5.67	34.16	270	134	A	H
		2388.78	62.65	-11.35	74	59.84	31.3	5.65	34.14	110	26	P	V
		2367.33	47.91	-6.09	54	45.19	31.25	5.61	34.14	110	26	A	V
	*	2408	108.22	-	-	105.38	31.33	5.67	34.16	110	26	P	V
	*	2408	100.58	-	-	97.74	31.33	5.67	34.16	110	26	A	V
802.11g CH 11 2462MHz	*	2462	112.05	-	-	109.16	31.41	5.73	34.25	210	135	P	H
	*	2460	104.27	-	-	101.38	31.41	5.73	34.25	210	135	A	H
		2483.68	70.98	-3.02	74	68.07	31.44	5.75	34.28	210	135	P	H
		2486.08	51.54	-2.46	54	48.63	31.44	5.75	34.28	210	135	A	H
	*	2464	108.86	-	-	105.97	31.41	5.73	34.25	102	27	P	V
	*	2464	101.25	-	-	98.36	31.41	5.73	34.25	102	27	A	V
		2483.62	68.84	-5.16	74	65.93	31.44	5.75	34.28	102	27	P	V
		2484.28	51.13	-2.87	54	48.22	31.44	5.75	34.28	102	27	A	V



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)	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	43.22	-30.78	74	64.24	35.65	7.86	64.53	100	360	P	H
		4824	47.82	-26.18	74	68.84	35.65	7.86	64.53	100	360	P	V
802.11g CH 06 2437MHz		4872	45.07	-28.93	74	66.16	35.61	7.9	64.6	100	360	P	H
		7308	41.17	-32.83	74	60.79	35.89	9.5	65.01	100	360	P	H
		4872	47.78	-26.22	74	68.87	35.61	7.9	64.6	100	360	P	V
		7308	41.69	-32.31	74	61.31	35.89	9.5	65.01	100	360	P	V
802.11g CH 11 2462MHz		4926	43.93	-30.07	74	65.1	35.57	7.94	64.68	100	360	P	H
		7386	41.63	-32.37	74	61.21	35.94	9.53	65.05	100	360	P	H
		4926	45.96	-28.04	74	67.13	35.57	7.94	64.68	100	360	P	V
		7386	41.56	-32.44	74	61.14	35.94	9.53	65.05	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	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		2388.91	69.19	-4.81	74	66.38	31.3	5.65	34.14	272	134	P	H
		2389.82	52.91	-1.09	54	50.1	31.3	5.65	34.14	272	134	A	H
	*	2412	110.55	-	-	107.71	31.33	5.67	34.16	272	134	P	H
	*	2410	102.37	-	-	99.53	31.33	5.67	34.16	272	134	A	H
		2389.82	64.8	-9.2	74	61.99	31.3	5.65	34.14	102	215	P	V
		2389.95	49.22	-4.78	54	46.41	31.3	5.65	34.14	102	215	A	V
	*	2408	106.31	-	-	103.47	31.33	5.67	34.16	102	215	P	V
	*	2408	98.54	-	-	95.7	31.33	5.67	34.16	102	215	A	V
802.11n HT20 CH 11 2462MHz	*	2458	112.58	-	-	109.69	31.41	5.73	34.25	211	129	P	H
	*	2458	104.14	-	-	101.25	31.41	5.73	34.25	211	129	A	H
		2483.51	70.49	-3.51	74	67.58	31.44	5.75	34.28	211	129	P	H
		2483.56	52.64	-1.36	54	49.73	31.44	5.75	34.28	211	129	A	H
	*	2456	108.57	-	-	105.68	31.41	5.73	34.25	189	206	P	V
	*	2456	100.82	-	-	97.93	31.41	5.73	34.25	189	206	A	V
		2483.56	68.63	-5.37	74	65.72	31.44	5.75	34.28	189	206	P	V
		2483.5	51.27	-2.73	54	48.36	31.44	5.75	34.28	189	206	A	V



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)	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	42.26	-31.74	74	63.28	35.65	7.86	64.53	100	360	P	H
		4824	44.06	-29.94	74	65.08	35.65	7.86	64.53	100	360	P	V
802.11n HT20 CH 06 2437MHz		4872	45.21	-28.79	74	66.3	35.61	7.9	64.6	100	360	P	H
		7308	41.45	-32.55	74	61.07	35.89	9.5	65.01	100	360	P	H
		4872	47.14	-26.86	74	68.23	35.61	7.9	64.6	100	360	P	V
		7308	41.38	-32.62	74	61	35.89	9.5	65.01	100	360	P	V
802.11n HT20 CH 11 2462MHz		4926	42.66	-31.34	74	63.83	35.57	7.94	64.68	100	360	P	H
		7386	41.85	-32.15	74	61.43	35.94	9.53	65.05	100	360	P	H
		4926	44.66	-29.34	74	65.83	35.57	7.94	64.68	100	360	P	V
		7386	40.28	-33.72	74	59.86	35.94	9.53	65.05	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	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 HT40 CH 03 2422MHz		2389.82	67.22	-6.78	74	64.41	31.3	5.65	34.14	133	138	P	H
		2389.69	52.76	-1.24	54	49.95	31.3	5.65	34.14	133	138	A	H
	*	2418	105.96	-	-	103.12	31.33	5.67	34.16	133	138	P	H
	*	2418	98.19	-	-	95.35	31.33	5.67	34.16	133	138	A	H
		2484.52	55.57	-18.43	74	52.66	31.44	5.75	34.28	133	138	P	H
		2483.51	45.6	-8.4	54	42.69	31.44	5.75	34.28	133	138	A	H
		2385.27	67.08	-6.92	74	64.32	31.27	5.63	34.14	100	29	P	V
		2385.14	52.84	-1.16	54	50.08	31.27	5.63	34.14	100	29	A	V
	*	2424	104.65	-	-	101.79	31.36	5.69	34.19	100	29	P	V
	*	2424	97.16	-	-	94.3	31.36	5.69	34.19	100	29	A	V
		2484.28	56.28	-17.72	74	53.37	31.44	5.75	34.28	100	29	P	V
		2483.92	45.19	-8.81	54	42.28	31.44	5.75	34.28	100	29	A	V
802.11n HT40 CH 06 2437MHz		2389.82	66.29	-7.71	74	63.48	31.3	5.65	34.14	146	138	P	H
		2389.95	52.85	-1.15	54	50.04	31.3	5.65	34.14	146	138	A	H
	*	2434	108.26	-	-	105.4	31.36	5.69	34.19	146	138	P	H
	*	2434	100.57	-	-	97.71	31.36	5.69	34.19	146	138	A	H
		2483.51	65.47	-8.53	74	62.56	31.44	5.75	34.28	146	138	P	H
		2486.2	48.78	-5.22	54	45.87	31.44	5.75	34.28	146	138	A	H
		2389.69	59.57	-14.43	74	56.76	31.3	5.65	34.14	151	216	P	V
		2382.54	46.94	-7.06	54	44.18	31.27	5.63	34.14	151	216	A	V
	*	2440	106.79	-	-	103.91	31.39	5.71	34.22	151	216	P	V
	*	2440	99.06	-	-	96.18	31.39	5.71	34.22	151	216	A	V
		2485.12	59.8	-14.2	74	56.89	31.44	5.75	34.28	151	216	P	V
		2483.51	48.84	-5.16	54	45.93	31.44	5.75	34.28	151	216	A	V



802.11n HT40 CH 09 2452MHz		2388.13	56.39	-17.61	74	53.58	31.3	5.65	34.14	116	135	P	H
		2387.48	44.91	-9.09	54	42.1	31.3	5.65	34.14	116	135	A	H
	*	2450	106.88	-	-	104	31.39	5.71	34.22	116	135	P	H
	*	2448	99.38	-	-	96.5	31.39	5.71	34.22	116	135	A	H
		2487.52	67.35	-6.65	74	64.41	31.47	5.77	34.3	116	135	P	H
		2487.1	52.44	-1.56	54	49.53	31.44	5.75	34.28	116	135	A	H
		2369.02	54.18	-19.82	74	51.42	31.27	5.63	34.14	141	204	P	V
		2385.01	43.51	-10.49	54	40.75	31.27	5.63	34.14	141	204	A	V
	*	2448	104.13	-	-	101.25	31.39	5.71	34.22	141	204	P	V
	*	2454	96.35	-	-	93.46	31.41	5.73	34.25	141	204	A	V
		2487.28	63.8	-10.2	74	60.89	31.44	5.75	34.28	141	204	P	V
		2483.5	47.47	-6.53	54	44.56	31.44	5.75	34.28	141	204	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	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	43.51	-30.49	74	64.56	35.63	7.87	64.55	100	360	P	H
HT40		7266	40.65	-33.35	74	60.29	35.87	9.48	64.99	100	360	P	H
CH 03		4842	42.93	-31.07	74	63.98	35.63	7.87	64.55	100	360	P	V
2422MHz		7266	41.24	-32.76	74	60.88	35.87	9.48	64.99	100	360	P	V
802.11n		4872	41.38	-32.62	74	62.47	35.61	7.9	64.6	100	360	P	H
HT40		7308	41.38	-32.62	74	61	35.89	9.5	65.01	100	360	P	H
CH 06		4872	41.43	-32.57	74	62.52	35.61	7.9	64.6	100	360	P	V
2437MHz		7308	40.85	-33.15	74	60.47	35.89	9.5	65.01	100	360	P	V
802.11n		4902	42.1	-31.9	74	63.24	35.58	7.93	64.65	100	360	P	H
HT40		7356	41.13	-32.87	74	60.72	35.92	9.52	65.03	100	360	P	H
CH 09		4902	43.81	-30.19	74	64.95	35.58	7.93	64.65	100	360	P	V
2452MHz		7356	40.81	-33.19	74	60.4	35.92	9.52	65.03	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11n HT20 (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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11n HT20 LF		30	22.49	-17.51	40	29.29	24.5	0.61	31.91	-	-	P	H
		265.71	30.64	-15.36	46	40.89	19.13	1.76	31.14	-	-	P	H
		296.75	25.42	-20.58	46	35.64	18.95	1.82	30.99	-	-	P	H
		330.7	24.17	-21.83	46	33.31	19.81	1.87	30.82	-	-	P	H
		726.46	33.56	-12.44	46	34.41	24.91	2.69	28.45	-	-	P	H
		773.02	34.4	-11.6	46	34.29	25.47	2.8	28.16	100	219	P	H
		30	22.92	-17.08	40	29.72	24.5	0.61	31.91	-	-	P	V
		262.8	28.31	-17.69	46	38.49	19.21	1.76	31.15	-	-	P	V
		432.55	25.5	-20.5	46	31.56	22.12	2.09	30.27	-	-	P	V
		609.09	29.08	-16.92	46	31.41	24.33	2.58	29.24	-	-	P	V
		710.94	32.27	-13.73	46	33.42	24.73	2.67	28.55	100	126	P	V
		773.02	32.09	-13.91	46	31.98	25.47	2.8	28.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11g (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.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 02 2417MHz		2389.82	66.04	-7.96	74	64.63	32.1	5.41	36.1	280	136	P	H
		2389.95	52.67	-1.33	54	51.26	32.1	5.41	36.1	280	136	A	H
	*	2420	108.6	-	-	106.89	32.37	5.41	36.07	280	136	P	H
	*	2420	100.03	-	-	98.32	32.37	5.41	36.07	280	136	A	H
		2389.56	65.27	-8.73	74	63.86	32.1	5.41	36.1	142	222	P	V
		2389.82	51.64	-2.36	54	50.23	32.1	5.41	36.1	142	222	A	V
	*	2422	108.16	-	-	106.45	32.37	5.41	36.07	142	222	P	V
	*	2420	100.05	-	-	98.34	32.37	5.41	36.07	142	222	A	V
802.11g CH 10 2457MHz	*	2460	110.78	-	-	108.97	32.43	5.43	36.05	100	136	P	H
	*	2458	102.45	-	-	100.64	32.43	5.43	36.05	100	136	A	H
		2483.92	68.31	-5.69	74	66.52	32.37	5.45	36.03	100	136	P	H
		2483.68	51.91	-2.09	54	50.12	32.37	5.45	36.03	100	136	A	H
	*	2462	111.17	-	-	109.36	32.43	5.43	36.05	226	207	P	V
	*	2458	103.37	-	-	101.56	32.43	5.43	36.05	226	207	A	V
		2484.64	68.91	-5.09	74	67.12	32.37	5.45	36.03	226	207	P	V
		2483.62	52.84	-1.16	54	51.05	32.37	5.45	36.03	226	207	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	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 02 2417MHz		4836	40.3	-33.7	74	62.8	34.1	7.95	64.55	100	360	P	H
		7251	40.18	-33.82	74	59.8	35.7	9.66	64.98	100	360	P	H
		4834	39.71	-34.29	74	62.21	34.1	7.95	64.55	100	360	P	V
		7248	39.92	-34.08	74	59.54	35.7	9.66	64.98	100	360	P	V
802.11g CH 10 2457MHz		4914	40.81	-33.19	74	63.44	34	8.02	64.65	100	360	P	H
		7368	41.09	-32.91	74	60.49	35.7	9.94	65.04	100	360	P	H
		4914	38.91	-35.09	74	61.54	34	8.02	64.65	100	360	P	V
		7371	40.44	-33.56	74	59.84	35.7	9.94	65.04	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	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 02 2417MHz		2389.69	65.4	-8.6	74	63.99	32.1	5.41	36.1	152	135	P	H
		2389.95	50.97	-3.03	54	49.56	32.1	5.41	36.1	152	135	A	H
	*	2412	108.34	-	-	106.77	32.23	5.41	36.07	152	135	P	H
	*	2414	100	-	-	98.43	32.23	5.41	36.07	152	135	A	H
		2389.82	65.43	-8.57	74	64.02	32.1	5.41	36.1	184	223	P	V
		2389.82	52.35	-1.65	54	50.94	32.1	5.41	36.1	184	223	A	V
	*	2420	108.48	-	-	106.77	32.37	5.41	36.07	184	223	P	V
	*	2416	100.44	-	-	98.87	32.23	5.41	36.07	184	223	A	V
802.11n HT20 CH 10 2457MHz	*	2454	109.84	-	-	108.03	32.43	5.43	36.05	101	136	P	H
	*	2458	101.62	-	-	99.81	32.43	5.43	36.05	101	136	A	H
		2484.7	65.47	-8.53	74	63.68	32.37	5.45	36.03	101	136	P	H
		2483.51	51.31	-2.69	54	49.52	32.37	5.45	36.03	101	136	A	H
	*	2458	110	-	-	108.19	32.43	5.43	36.05	189	206	P	V
	*	2458	101.98	-	-	100.17	32.43	5.43	36.05	189	206	A	V
		2484.94	68.1	-5.9	74	66.31	32.37	5.45	36.03	189	206	P	V
		2483.51	52.47	-1.53	54	50.68	32.37	5.45	36.03	189	206	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	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		4834	40.26	-33.74	74	62.76	34.1	7.95	64.55	100	360	P	H
HT20		7248	40.7	-33.3	74	60.32	35.7	9.66	64.98	100	360	P	H
CH 02		4836	39.92	-34.08	74	62.42	34.1	7.95	64.55	100	360	P	V
2417MHz		7251	40.68	-33.32	74	60.3	35.7	9.66	64.98	100	360	P	V
802.11n		4914	44.45	-29.55	74	67.08	34	8.02	64.65	100	360	P	H
HT20		7371	41.56	-32.44	74	60.96	35.7	9.94	65.04	100	360	P	H
CH 10		4914	41.84	-32.16	74	64.47	34	8.02	64.65	100	360	P	V
2457MHz		7371	40.22	-33.78	74	59.62	35.7	9.94	65.04	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	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 HT40 CH 04 2427MHz		2389.82	61.24	-12.76	74	59.83	32.1	5.41	36.1	275	136	P	H
		2389.95	50.14	-3.86	54	48.73	32.1	5.41	36.1	275	136	A	H
	*	2430	102.98	-	-	101.25	32.37	5.43	36.07	275	136	P	H
	*	2430	95.25	-	-	93.52	32.37	5.43	36.07	275	136	A	H
		2485.72	55.7	-18.3	74	53.91	32.37	5.45	36.03	275	136	P	H
		2483.62	44.58	-9.42	54	42.79	32.37	5.45	36.03	275	136	A	H
		2389.3	63.21	-10.79	74	61.8	32.1	5.41	36.1	100	88	P	V
		2389.69	52.78	-1.22	54	51.37	32.1	5.41	36.1	100	88	A	V
	*	2432	101.78	-	-	100.05	32.37	5.43	36.07	100	88	P	V
	*	2430	93.98	-	-	92.25	32.37	5.43	36.07	100	88	A	V
		2483.74	57.66	-16.34	74	55.87	32.37	5.45	36.03	100	88	P	V
		2484.58	47.1	-6.9	54	45.31	32.37	5.45	36.03	100	88	A	V
802.11n HT40 CH 08 2447MHz		2386.57	56.15	-17.85	74	54.74	32.1	5.41	36.1	100	136	P	H
		2388.91	46.22	-7.78	54	44.81	32.1	5.41	36.1	100	136	A	H
	*	2450	102.96	-	-	101.08	32.5	5.43	36.05	100	136	P	H
	*	2452	94.66	-	-	92.78	32.5	5.43	36.05	100	136	A	H
		2483.8	64.63	-9.37	74	62.84	32.37	5.45	36.03	100	136	P	H
		2483.68	50.03	-3.97	54	48.24	32.37	5.45	36.03	100	136	A	H
		2387.22	56.42	-17.58	74	55.01	32.1	5.41	36.1	185	205	P	V
		2389.95	45.42	-8.58	54	44.01	32.1	5.41	36.1	185	205	A	V
	*	2452	104.39	-	-	102.51	32.5	5.43	36.05	185	205	P	V
	*	2452	96.17	-	-	94.29	32.5	5.43	36.05	185	205	A	V
		2485.12	65.54	-8.46	74	63.75	32.37	5.45	36.03	185	205	P	V
		2483.8	52.43	-1.57	54	50.64	32.37	5.45	36.03	185	205	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	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		4854	39.63	-34.37	74	62.15	34.07	7.99	64.58	100	360	P	H
HT40		7281	39.69	-34.31	74	59.23	35.7	9.75	64.99	100	360	P	H
CH 04		4854	39.48	-34.52	74	62	34.07	7.99	64.58	100	360	P	V
2427MHz		7284	40.62	-33.38	74	60.17	35.7	9.75	65	100	360	P	V
802.11n		4894	38.37	-35.63	74	60.98	34	8.02	64.63	100	360	P	H
HT40		7344	40.04	-33.96	74	59.43	35.7	9.94	65.03	100	360	P	H
CH 08		4896	38.57	-35.43	74	61.18	34	8.02	64.63	100	360	P	V
2447MHz		7341	39.75	-34.25	74	59.14	35.7	9.94	65.03	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	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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 02 2417MHz		2389.04	69.7	-4.3	74	68.29	32.1	5.41	36.1	105	128	P	H
		2389.95	52.84	-1.16	54	51.43	32.1	5.41	36.1	105	128	A	H
	*	2422	113.36	-	-	111.65	32.37	5.41	36.07	105	128	P	H
	*	2422	105.76	-	-	104.05	32.37	5.41	36.07	105	128	A	H
		2388	65.75	-8.25	74	64.34	32.1	5.41	36.1	184	174	P	V
		2368.63	48.72	-5.28	54	47.38	32.1	5.36	36.12	184	174	A	V
	*	2418	110.91	-	-	109.34	32.23	5.41	36.07	184	174	P	V
	*	2418	102.11	-	-	100.54	32.23	5.41	36.07	184	174	A	V
802.11g CH 10 2457MHz	*	2460	113.33	-	-	111.52	32.43	5.43	36.05	160	128	P	H
	*	2460	105.54	-	-	103.73	32.43	5.43	36.05	160	128	A	H
		2483.62	69.38	-4.62	74	67.59	32.37	5.45	36.03	160	128	P	H
		2483.86	52.47	-1.53	54	50.68	32.37	5.45	36.03	160	128	A	H
	*	2454	109.48	-	-	107.67	32.43	5.43	36.05	122	178	P	V
	*	2454	101.64	-	-	99.83	32.43	5.43	36.05	122	178	A	V
		2485.72	64.58	-9.42	74	62.79	32.37	5.45	36.03	122	178	P	V
		2483.51	47.4	-6.6	54	45.61	32.37	5.45	36.03	122	178	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	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 02 2417MHz		4836	40.05	-33.95	74	62.55	34.1	7.95	64.55	100	360	P	H
		7248	41.54	-32.46	74	61.16	35.7	9.66	64.98	100	360	P	H
		4836	40.16	-33.84	74	62.66	34.1	7.95	64.55	100	0	P	V
		7248	41.31	-32.69	74	60.93	35.7	9.66	64.98	100	0	P	V
802.11g CH 10 2457MHz		4914	40.87	-33.13	74	63.5	34	8.02	64.65	100	360	P	H
		7368	39.93	-34.07	74	59.33	35.7	9.94	65.04	100	360	P	H
		4914	41.29	-32.71	74	63.92	34	8.02	64.65	100	0	P	V
		7368	40.89	-33.11	74	60.29	35.7	9.94	65.04	100	0	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	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 02 2417MHz		2389.82	68.55	-5.45	74	67.14	32.1	5.41	36.1	127	128	P	H
		2389.95	52.56	-1.44	54	51.15	32.1	5.41	36.1	127	128	A	H
	*	2412	112.81	-	-	111.24	32.23	5.41	36.07	127	128	P	H
	*	2416	105.07	-	-	103.5	32.23	5.41	36.07	127	128	A	H
		2388.78	65.94	-8.06	74	64.53	32.1	5.41	36.1	153	167	P	V
		2389.95	50.55	-3.45	54	49.14	32.1	5.41	36.1	153	167	A	V
	*	2414	111.1	-	-	109.53	32.23	5.41	36.07	153	167	P	V
	*	2412	103.12	-	-	101.55	32.23	5.41	36.07	153	167	A	V
802.11n HT20 CH 10 2457MHz	*	2464	111.77	-	-	109.92	32.43	5.45	36.03	139	129	P	H
	*	2462	104.15	-	-	102.34	32.43	5.43	36.05	139	129	A	H
		2485.36	69.85	-4.15	74	68.06	32.37	5.45	36.03	139	129	P	H
		2483.74	52.85	-1.15	54	51.06	32.37	5.45	36.03	139	129	A	H
	*	2460	110.14	-	-	108.33	32.43	5.43	36.05	118	195	P	V
	*	2460	102.33	-	-	100.52	32.43	5.43	36.05	118	195	A	V
		2486.68	66.25	-7.75	74	64.46	32.37	5.45	36.03	118	195	P	V
		2483.51	48.61	-5.39	54	46.82	32.37	5.45	36.03	118	195	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	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		4836	40.68	-33.32	74	63.18	34.1	7.95	64.55	100	360	P	H
HT20		7248	39.94	-34.06	74	59.56	35.7	9.66	64.98	100	360	P	H
CH 02		4836	41.1	-32.9	74	63.6	34.1	7.95	64.55	100	0	P	V
2417MHz		7248	41.09	-32.91	74	60.71	35.7	9.66	64.98	100	0	P	V
802.11n		4914	40.05	-33.95	74	62.68	34	8.02	64.65	100	360	P	H
HT20		7368	40.05	-33.95	74	59.45	35.7	9.94	65.04	100	360	P	H
CH 10		4914	43.2	-30.8	74	65.83	34	8.02	64.65	100	0	P	V
2457MHz		7368	40.39	-33.61	74	59.79	35.7	9.94	65.04	100	0	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	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 HT40 CH 04 2427MHz		2389.17	68.48	-5.52	74	67.07	32.1	5.41	36.1	110	124	P	H
		2389.43	52.87	-1.13	54	51.46	32.1	5.41	36.1	110	124	A	H
	*	2424	108.47	-	-	106.74	32.37	5.43	36.07	110	124	P	H
	*	2424	100.65	-	-	98.92	32.37	5.43	36.07	110	124	A	H
		2483.86	58.89	-15.11	74	57.1	32.37	5.45	36.03	110	124	P	H
		2483.56	47.29	-6.71	54	45.5	32.37	5.45	36.03	110	124	A	H
		2389.3	66.17	-7.83	74	64.76	32.1	5.41	36.1	122	167	P	V
		2389.69	48.41	-5.59	54	47	32.1	5.41	36.1	122	167	A	V
	*	2422	105.95	-	-	104.24	32.37	5.41	36.07	122	167	P	V
	*	2422	97.85	-	-	96.14	32.37	5.41	36.07	122	167	A	V
		2487.04	55.35	-18.65	74	53.56	32.37	5.45	36.03	122	167	P	V
		2483.74	43.99	-10.01	54	42.2	32.37	5.45	36.03	122	167	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	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		4854	40.51	-33.49	74	63.03	34.07	7.99	64.58	100	360	P	H
HT40		7284	40.31	-33.69	74	59.86	35.7	9.75	65	100	360	P	H
CH 04		4854	40.19	-33.81	74	62.71	34.07	7.99	64.58	100	0	P	V
2427MHz		7284	40.61	-33.39	74	60.16	35.7	9.75	65	100	0	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



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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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)

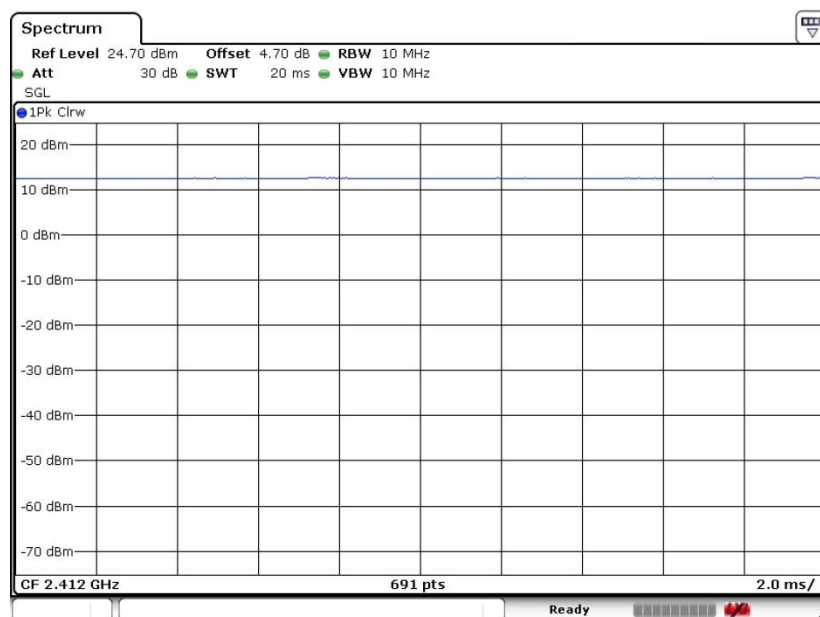
= -10.46(dB)

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

Appendix D. Duty Cycle Plots

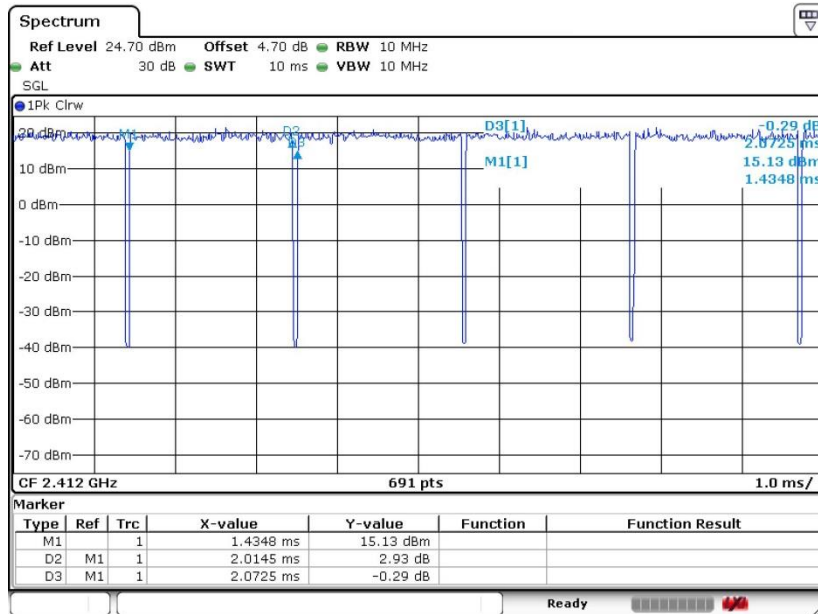
Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1	802.11b	100	-	-	10Hz
1	802.11g	97.20	2.015	0.50	0.51KHz
1	802.11n HT20	97.02	1.884	0.53	0.56KHz
1	802.11n HT40	95.52	0.928	1.08	1.1KHz
1+2	802.11b	100	-	-	10Hz
1+2	802.11g	97.90	2.029	0.49	0.51KHz
1+2	802.11n HT20	97.77	1.899	0.53	0.56KHz
1+2	802.11n HT40	96.24	0.928	1.08	1.1KHz

802.11b Ant. 1

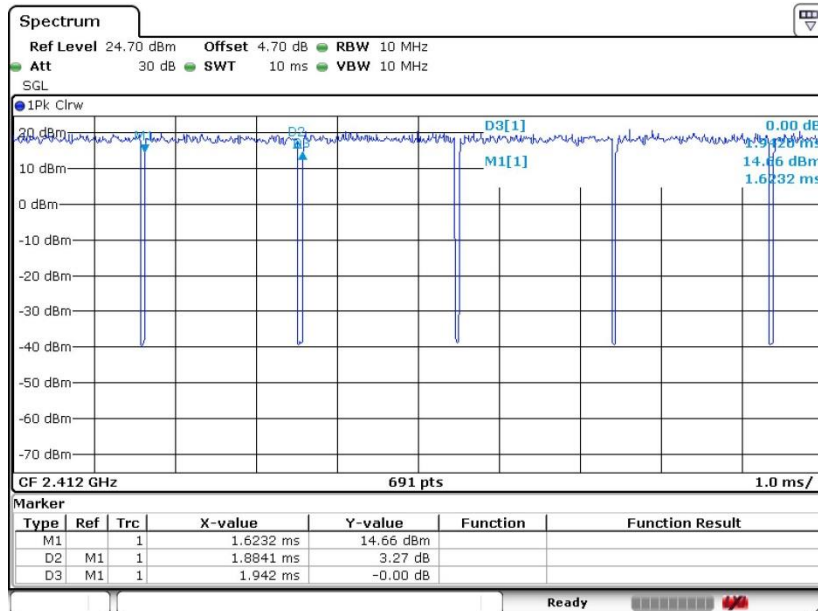




802.11g Ant. 1

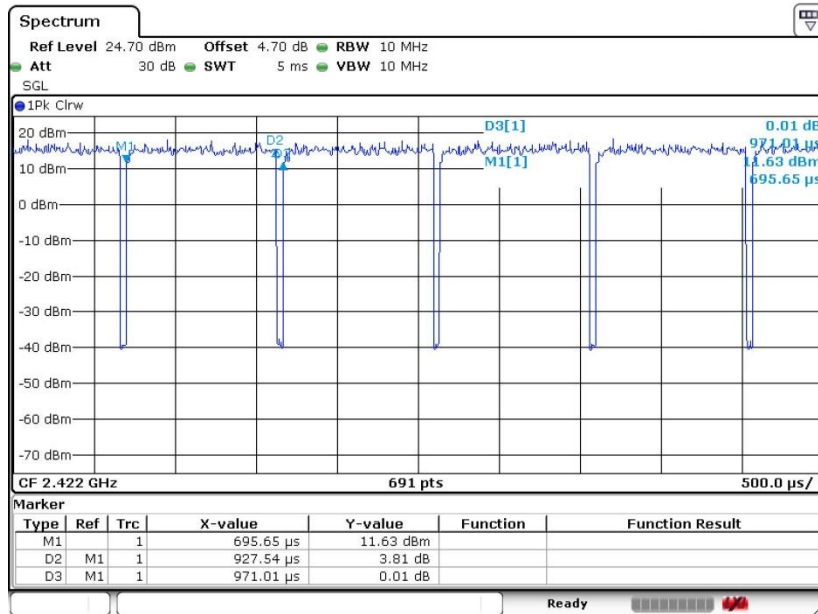


802.11n HT20 Ant. 1



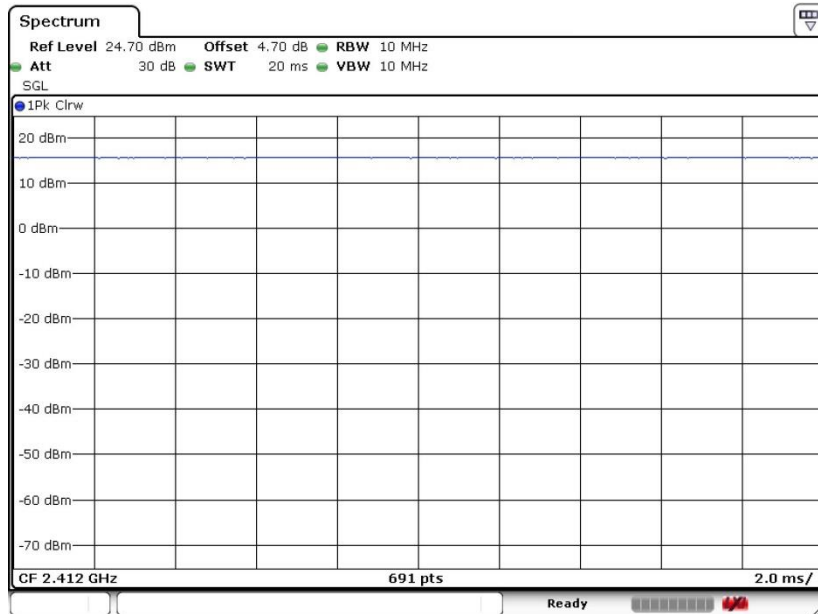


802.11n HT40 Ant. 1

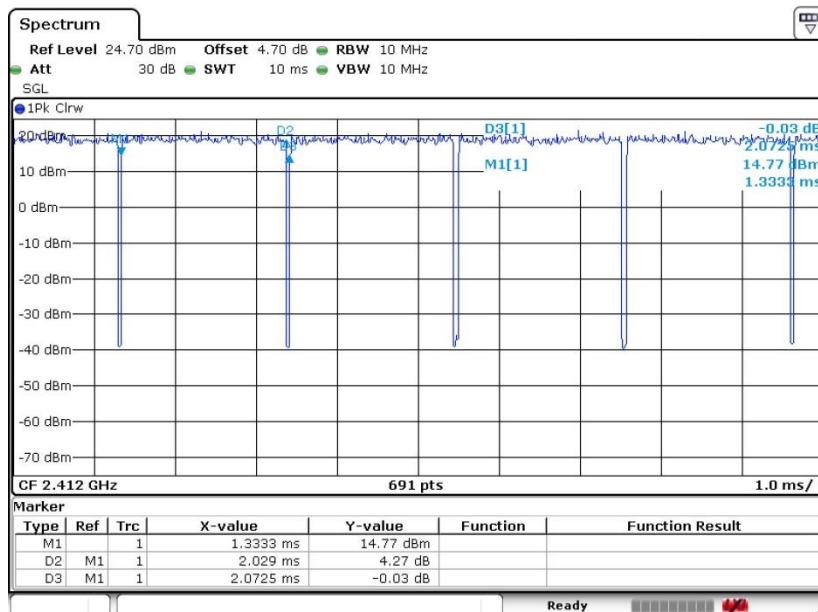




802.11b Ant. 1+2

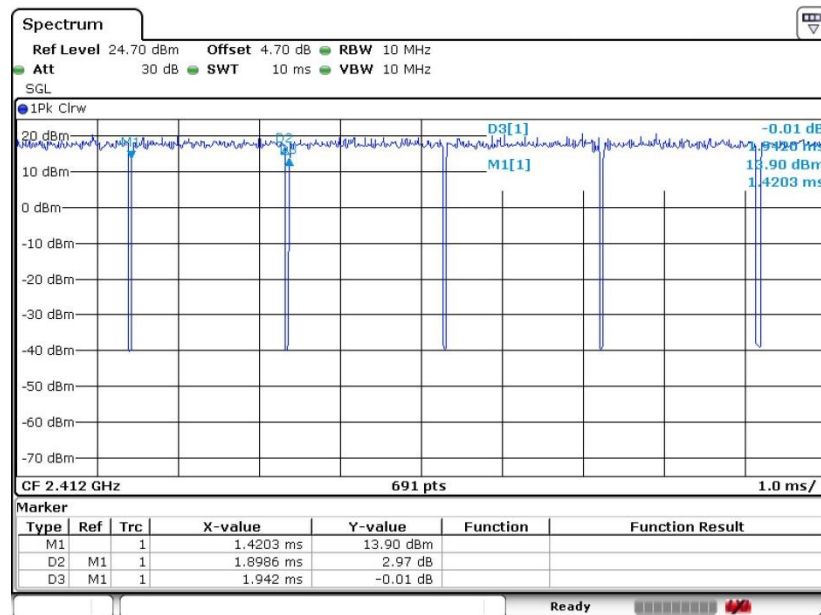


802.11g Ant. 1+2





802.11n HT20 Ant. 1+2



802.11n HT40 Ant. 1+2

