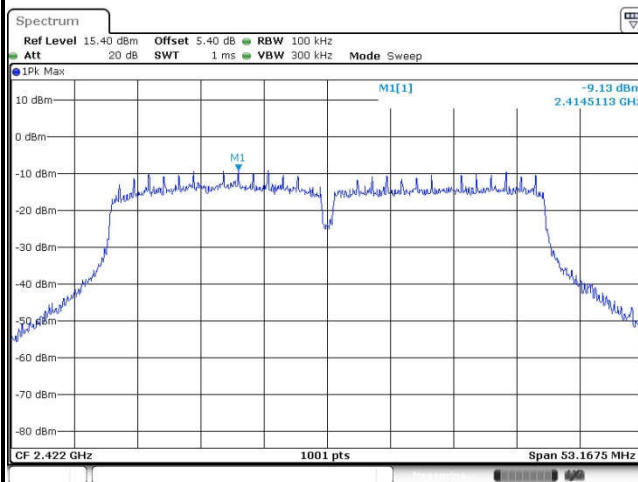
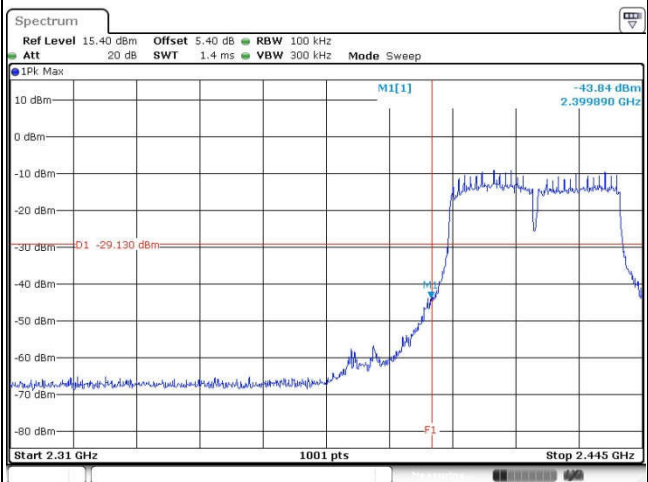




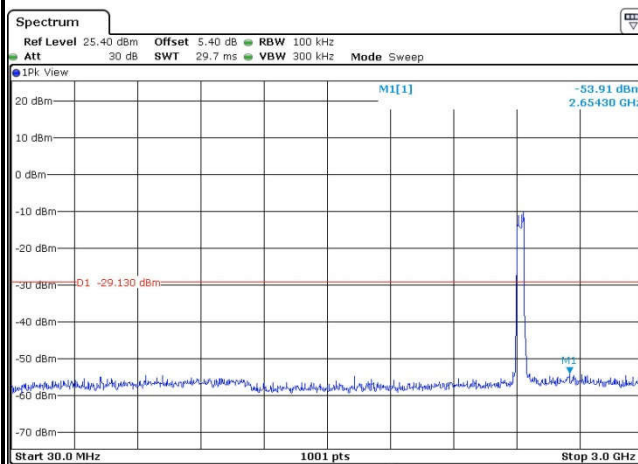
Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz Low	Relative Humidity :	49~51%
Test Channel :	03	Test Engineer :	Issac Song

WLAN 802.11n HT40 Channel 03**100kHz PSD reference Level**

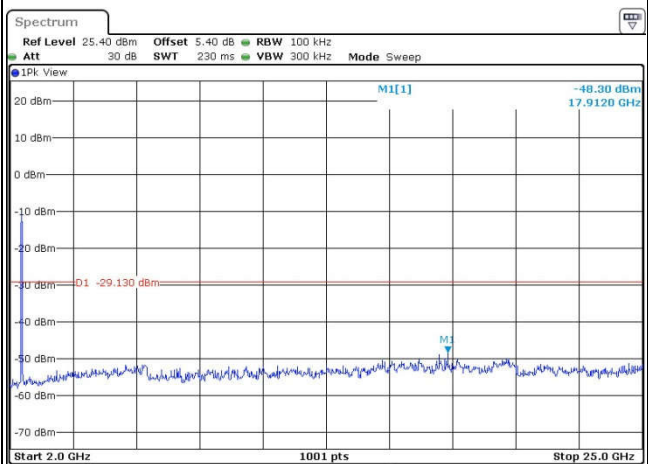
Date: 9 APR 2016 01:10:38

Low Channel Plot

Date: 9 APR 2016 01:10:48

Spurious Emission 30MHz~3GHz

Date: 9 APR 2016 01:12:01

Spurious Emission 2GHz~25GHz

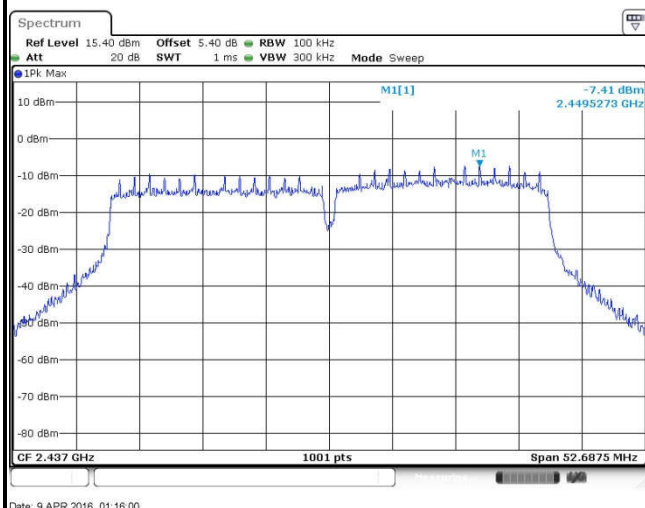
Date: 9 APR 2016 01:11:27



Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	49~51%
Test Channel :	06	Test Engineer :	Issac Song

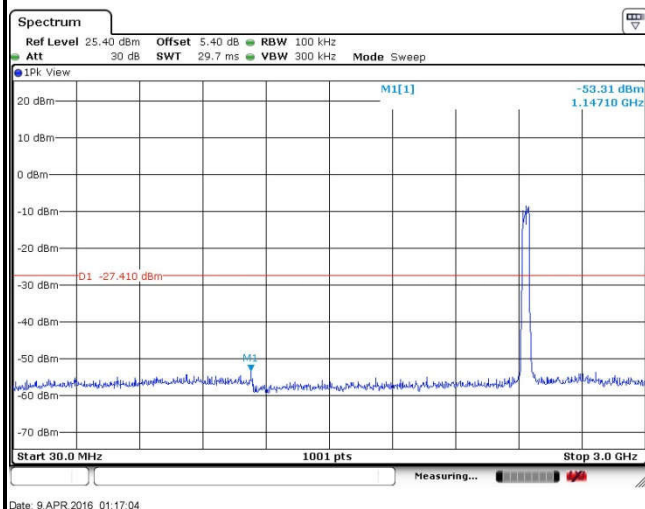
WLAN 802.11n HT40 Channel 06

100kHz PSD reference Level

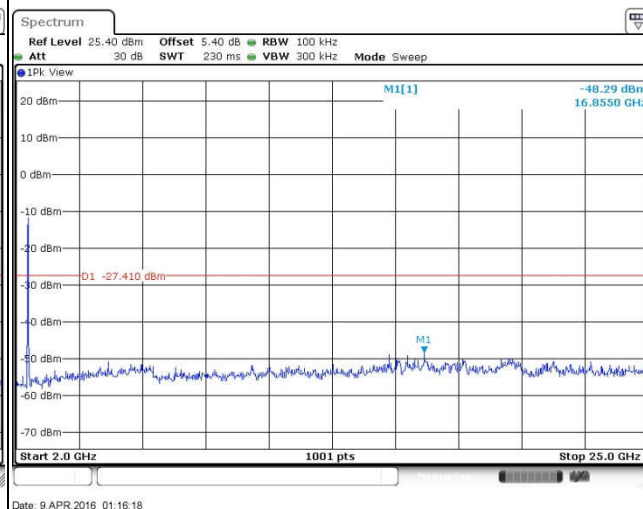


Mid Channel Plot

Spurious Emission 30MHz~3GHz

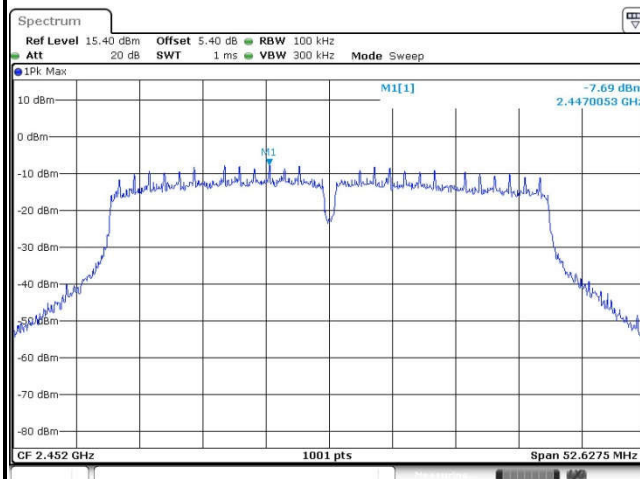
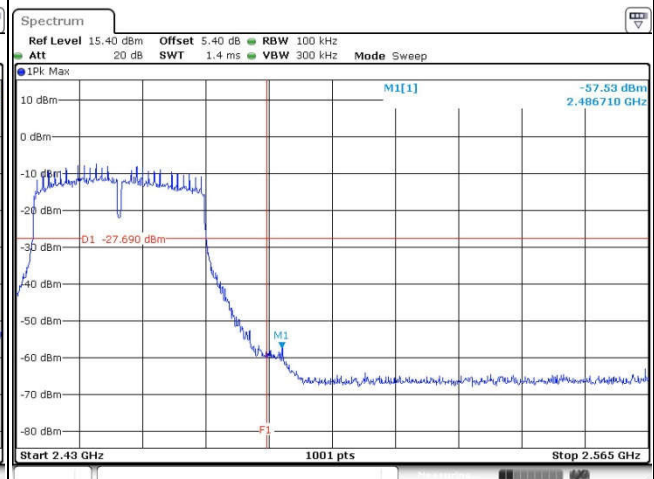
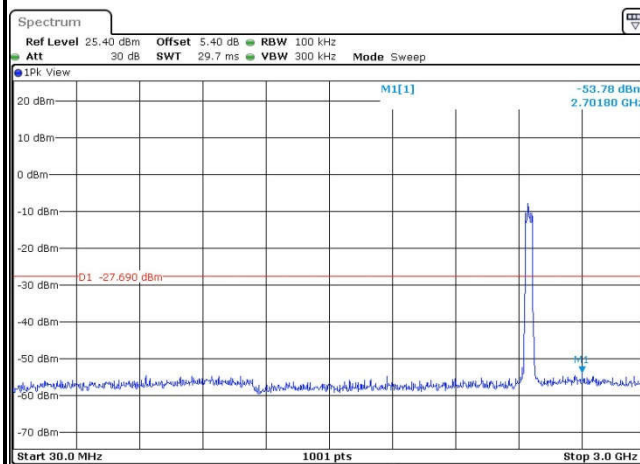
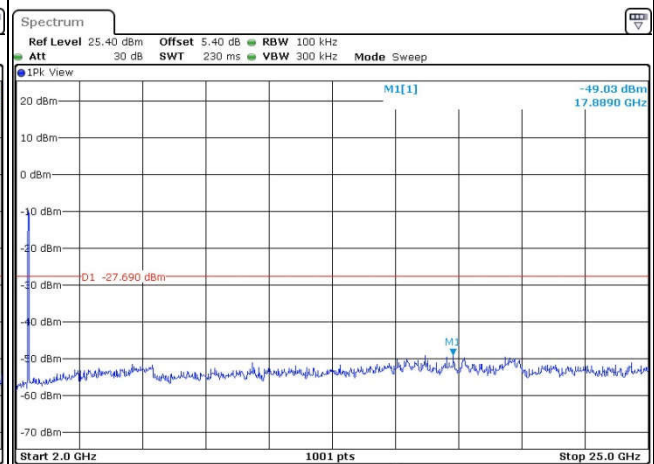


Spurious Emission 2GHz~25GHz





Number of TX :	2	Ant. :	1
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz High	Relative Humidity :	49~51%
Test Channel :	09	Test Engineer :	Issac Song

WLAN 802.11n HT40 Channel 09**100kHz PSD reference Level****High Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**

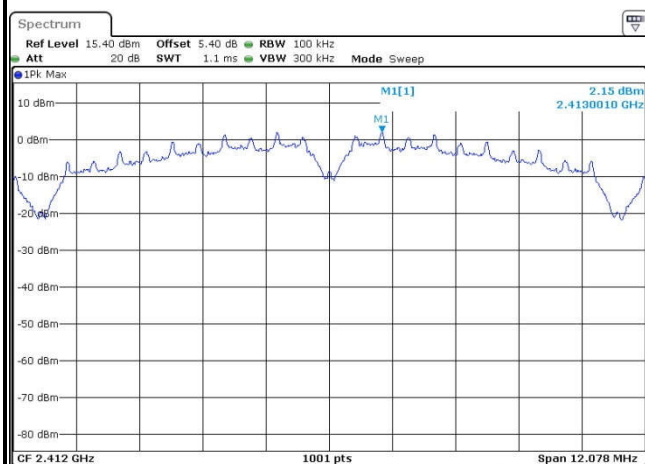


Number of TX = 2, Ant 1+2(2) (Measured)

Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	24~25°C
Test Band :	2.4GHz Low	Relative Humidity :	49~51%
Test Channel :	01	Test Engineer :	Issac Song

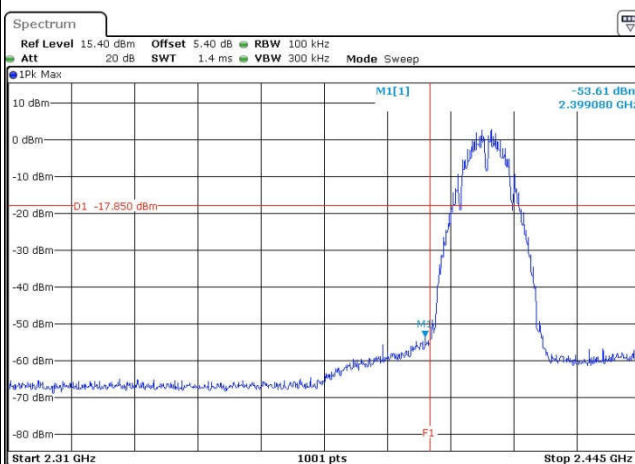
WLAN 802.11b Channel 01

100kHz PSD reference Level



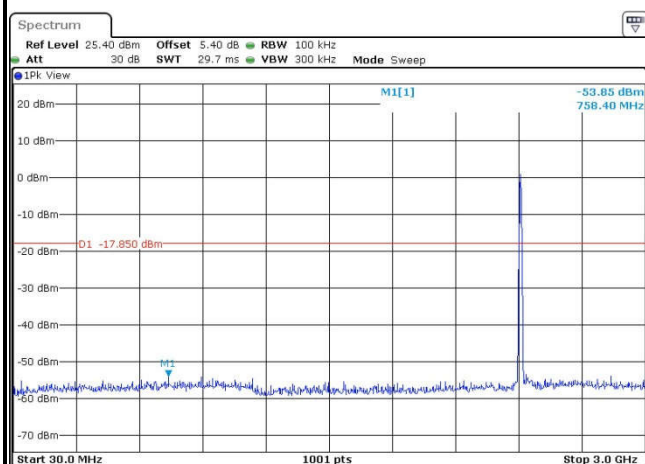
Date: 8 APR 2016 00:37:45

Low Channel Plot



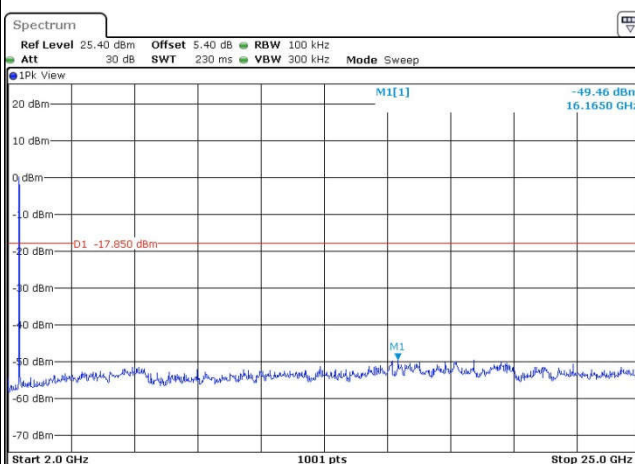
Date: 8 APR 2016 00:38:08

Spurious Emission 30MHz~3GHz



Date: 8 APR 2016 00:39:05

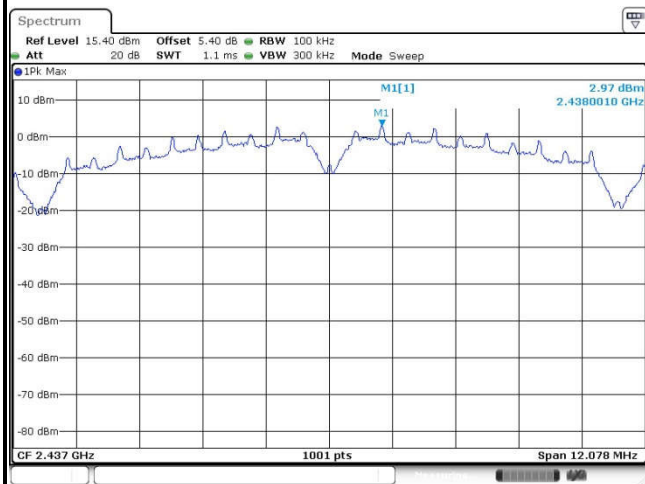
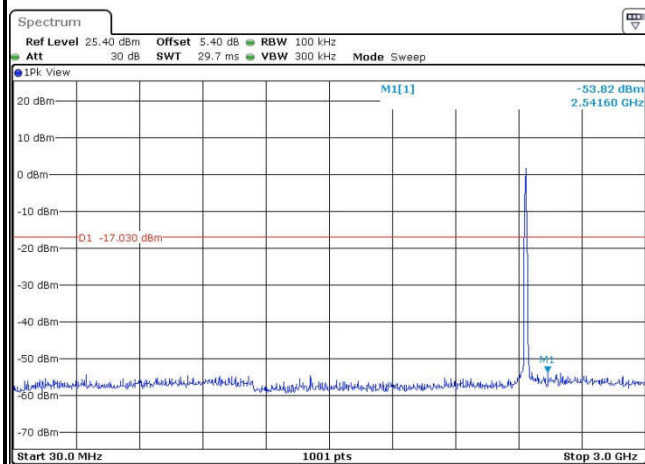
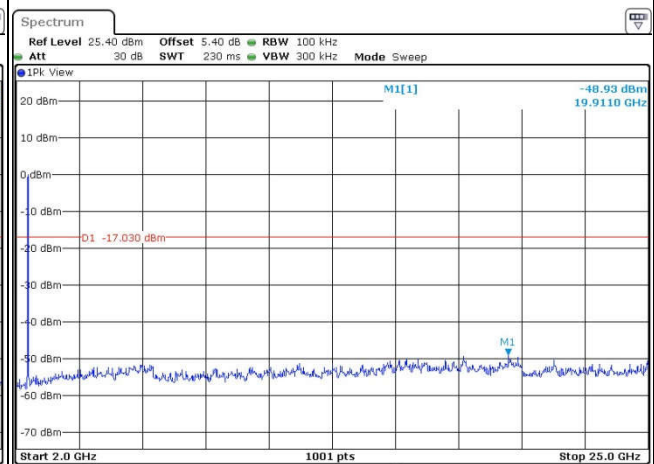
Spurious Emission 2GHz~25GHz



Date: 8 APR 2016 00:39:14



Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	24~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	49~51%
Test Channel :	06	Test Engineer :	Issac Song

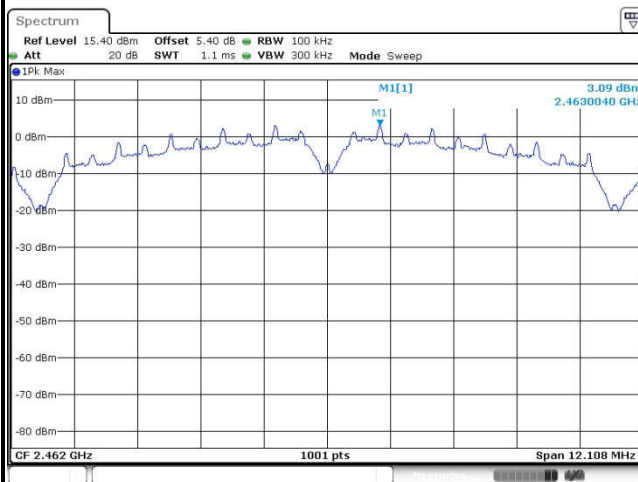
WLAN 802.11b Channel 06**100kHz PSD reference Level****Mid Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**



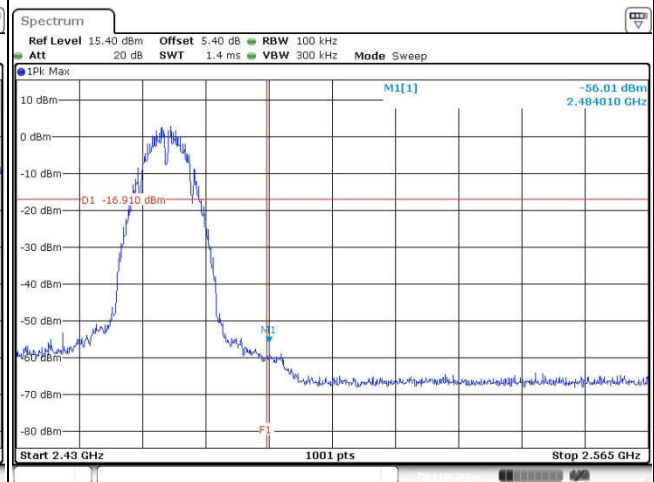
Number of TX :	2	Ant. :	2
Test Mode :	802.11b	Temperature :	24~25°C
Test Band :	2.4GHz High	Relative Humidity :	49~51%
Test Channel :	11	Test Engineer :	Issac Song

WLAN 802.11b Channel 11

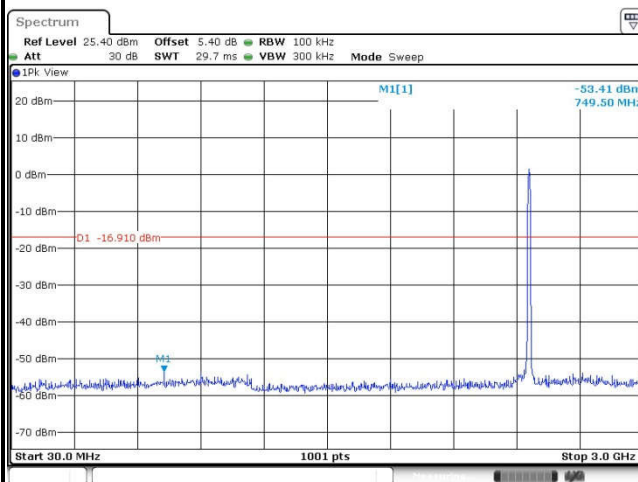
100kHz PSD reference Level



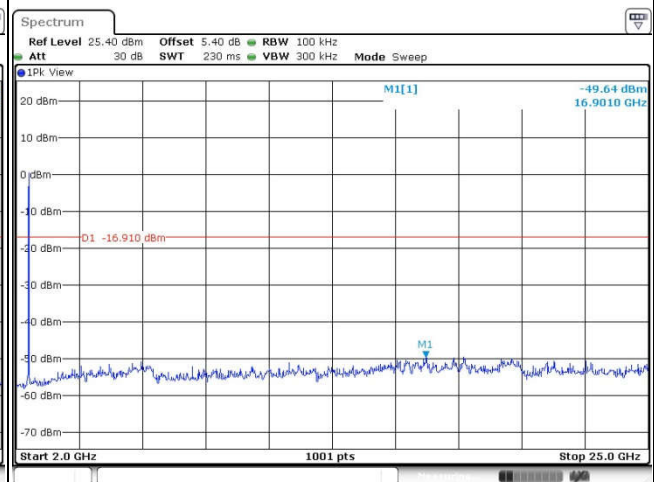
High Channel Plot



Spurious Emission 30MHz~3GHz

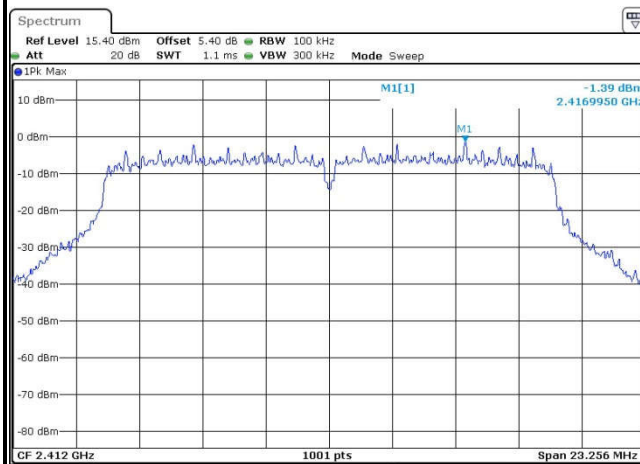
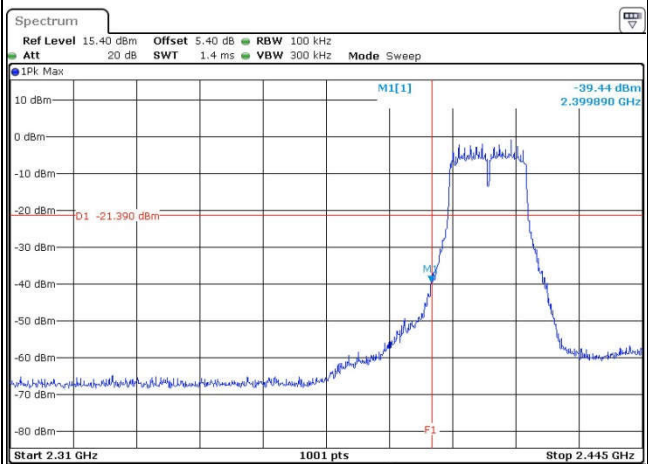
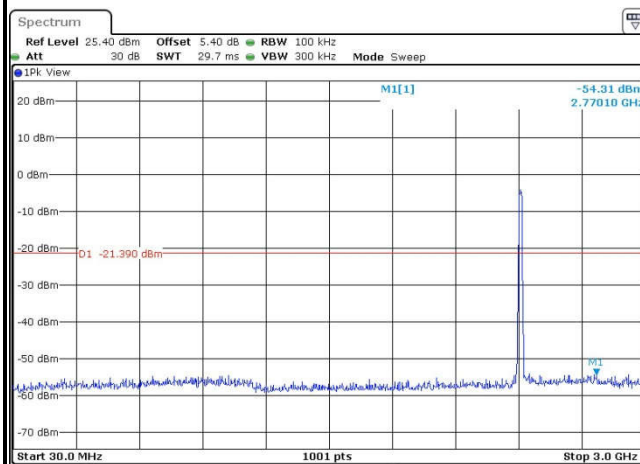
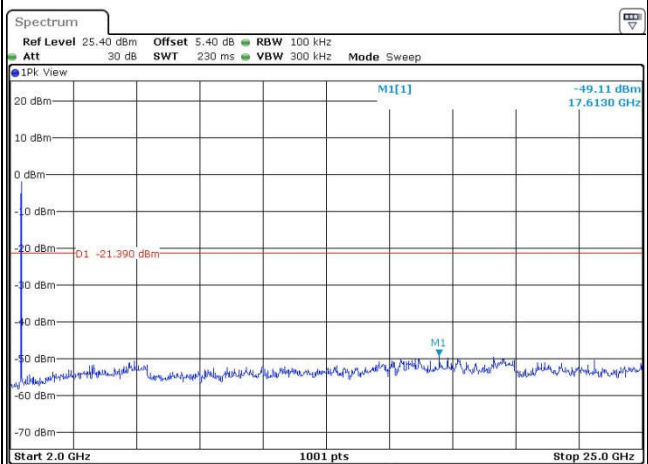


Spurious Emission 2GHz~25GHz



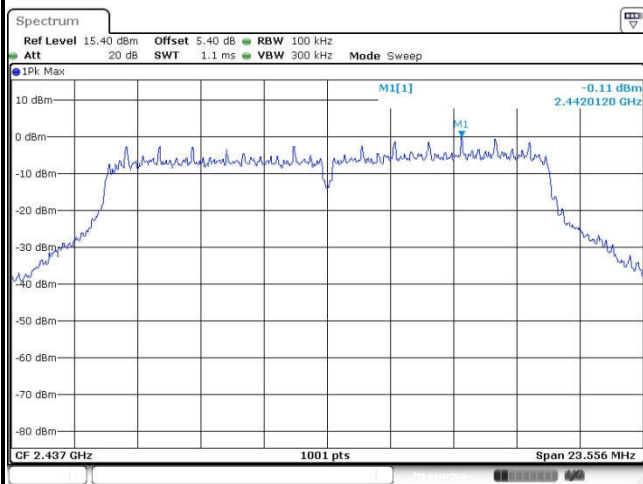
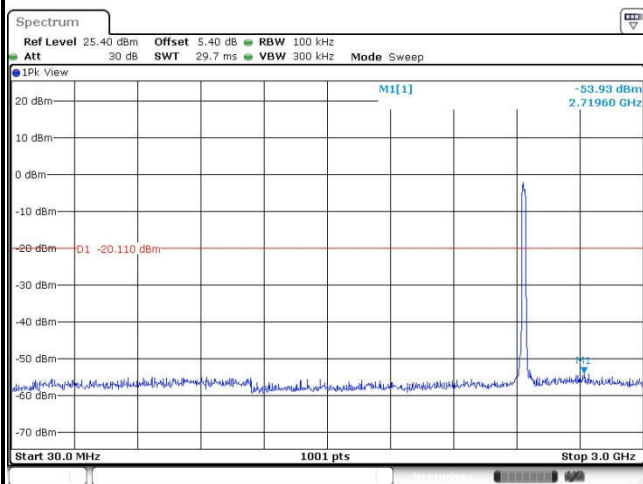
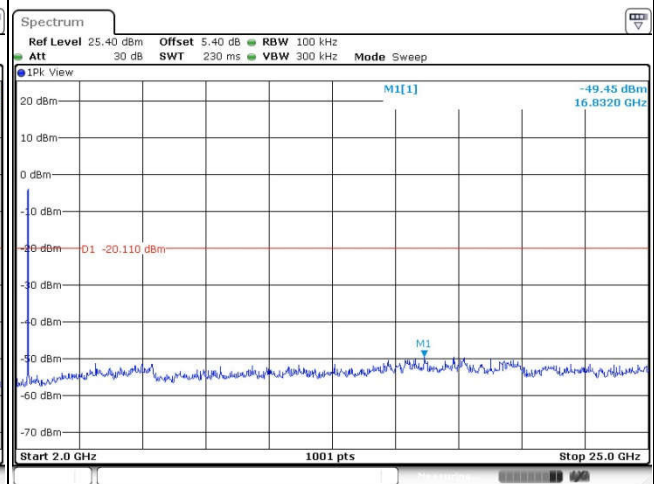


Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25°C
Test Band :	2.4GHz Low	Relative Humidity :	49~51%
Test Channel :	01	Test Engineer :	Issac Song

WLAN 802.11g Channel 01**100kHz PSD reference Level****Low Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**

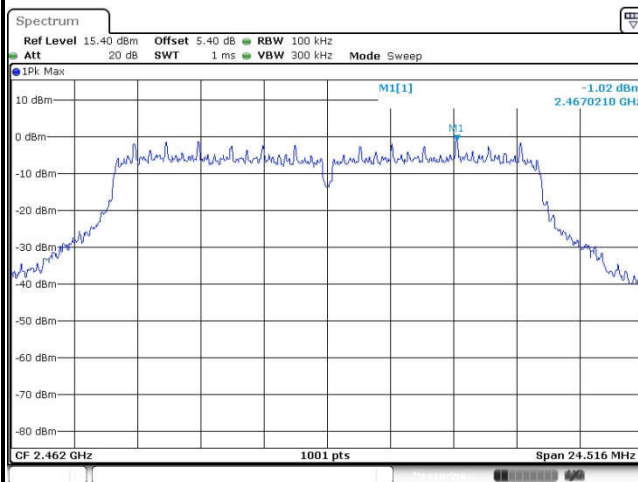
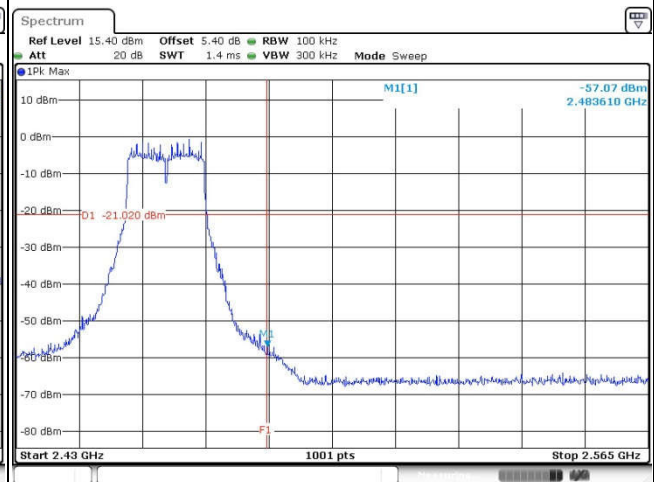
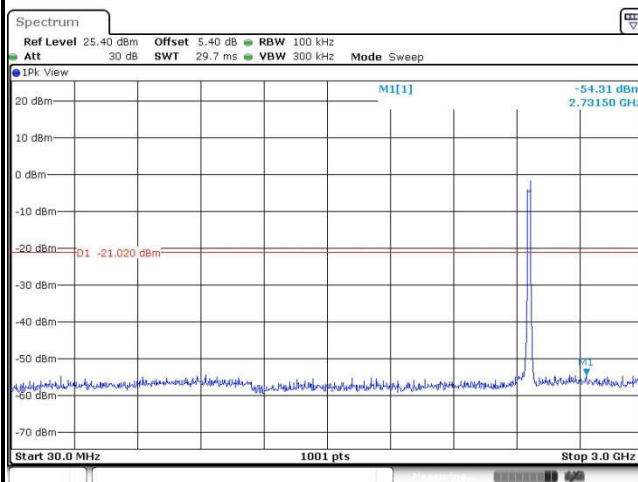
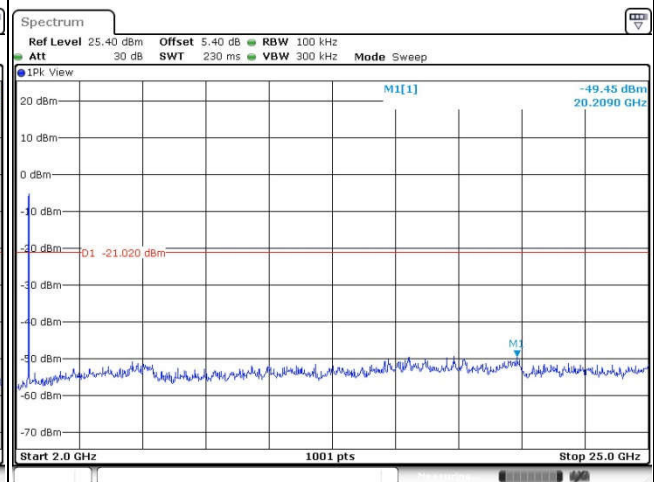


Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	49~51%
Test Channel :	06	Test Engineer :	Issac Song

WLAN 802.11g Channel 06**100kHz PSD reference Level****Mid Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**



Number of TX :	2	Ant. :	2
Test Mode :	802.11g	Temperature :	24~25°C
Test Band :	2.4GHz High	Relative Humidity :	49~51%
Test Channel :	11	Test Engineer :	Issac Song

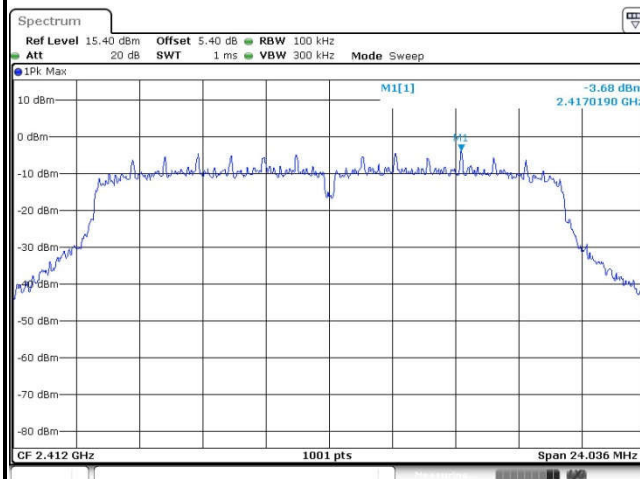
WLAN 802.11g Channel 11**100kHz PSD reference Level****High Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**



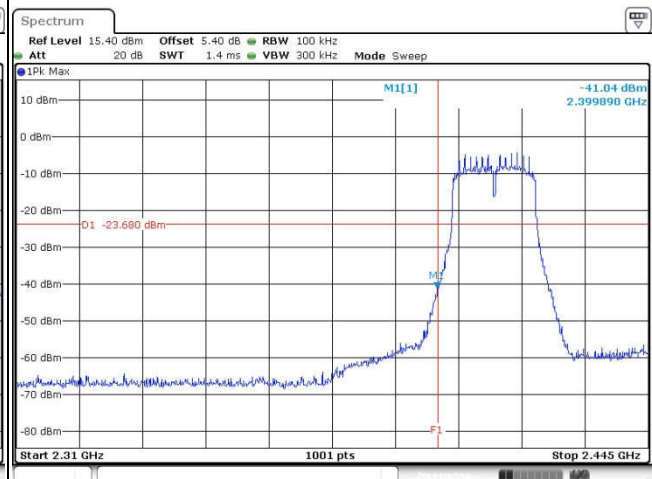
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25°C
Test Band :	2.4GHz Low	Relative Humidity :	49~51%
Test Channel :	01	Test Engineer :	Issac Song

WLAN 802.11n HT20 Channel 01

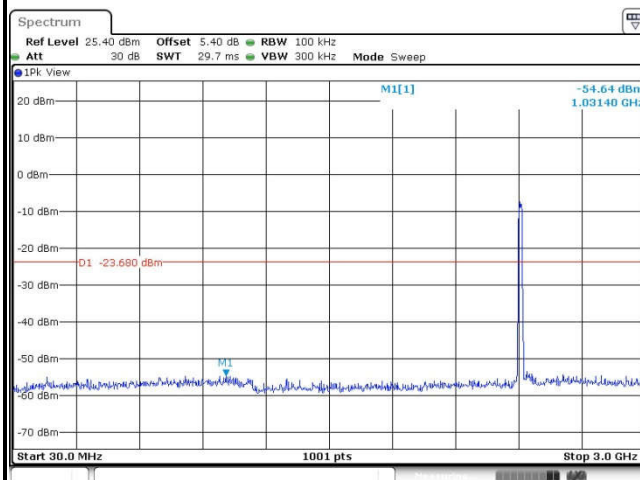
100kHz PSD reference Level



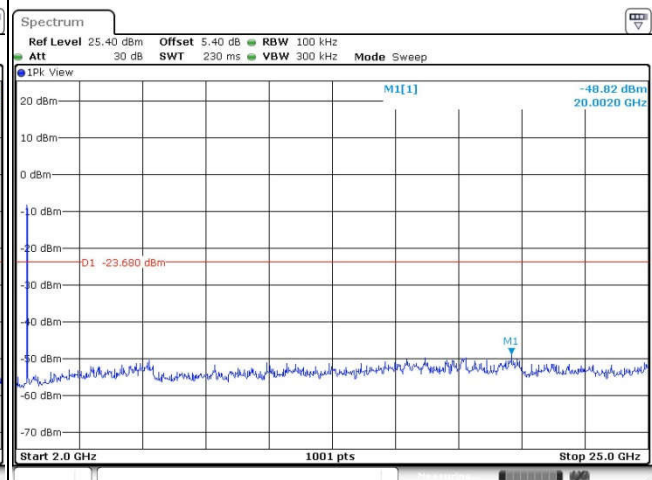
Low Channel Plot



Spurious Emission 30MHz~3GHz

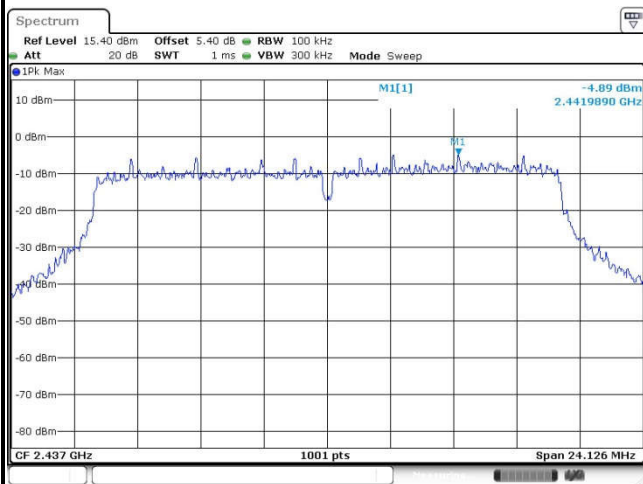
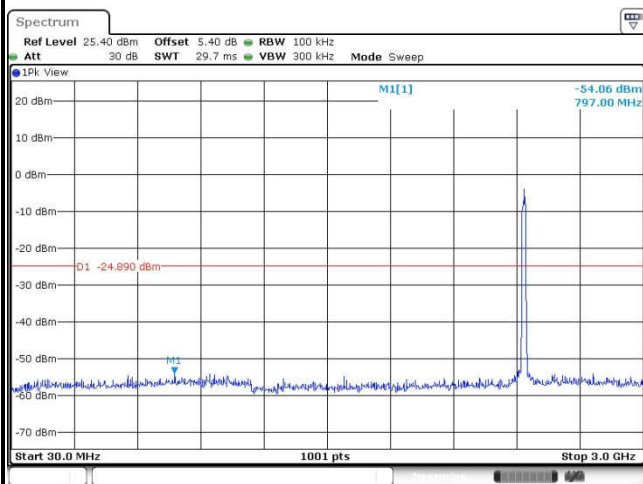
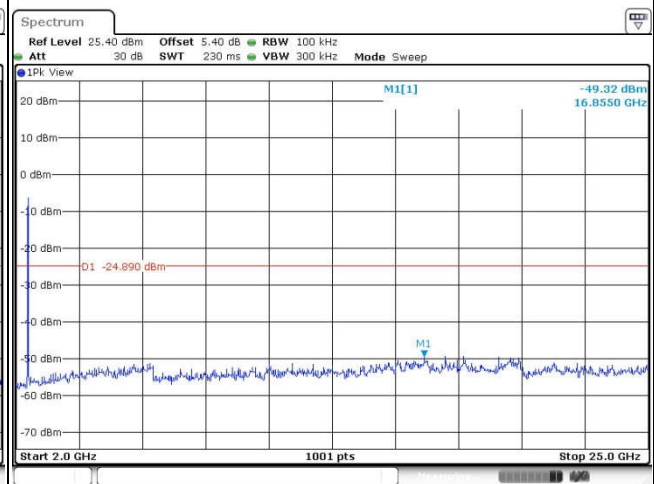


Spurious Emission 2GHz~25GHz



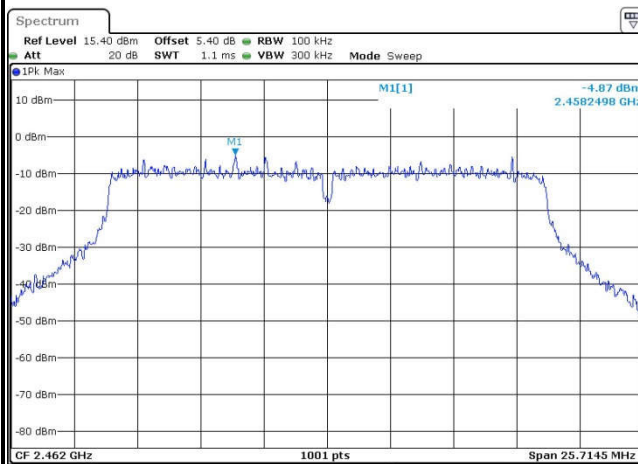


Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	49~51%
Test Channel :	06	Test Engineer :	Issac Song

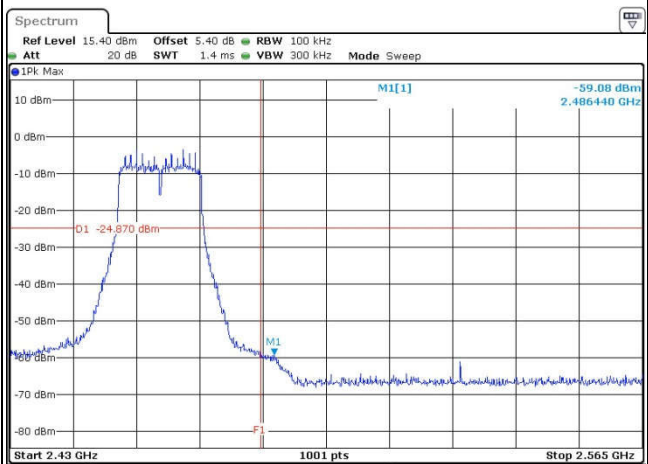
WLAN 802.11n HT20 Channel 06**100kHz PSD reference Level****Mid Channel Plot****Spurious Emission 30MHz~3GHz****Spurious Emission 2GHz~25GHz**



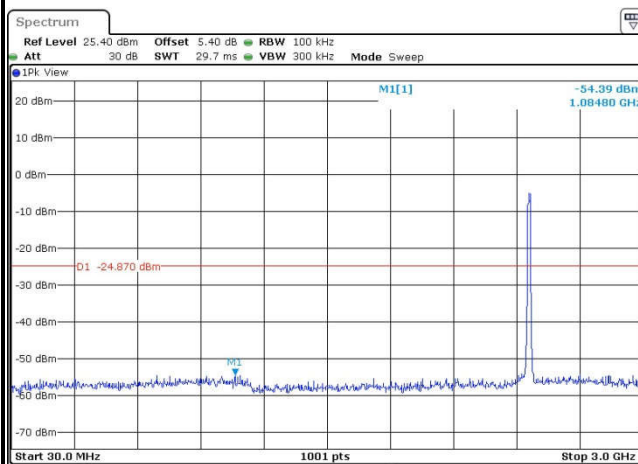
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT20	Temperature :	24~25°C
Test Band :	2.4GHz High	Relative Humidity :	49~51%
Test Channel :	11	Test Engineer :	Issac Song

WLAN 802.11n HT20 Channel 11**100kHz PSD reference Level**

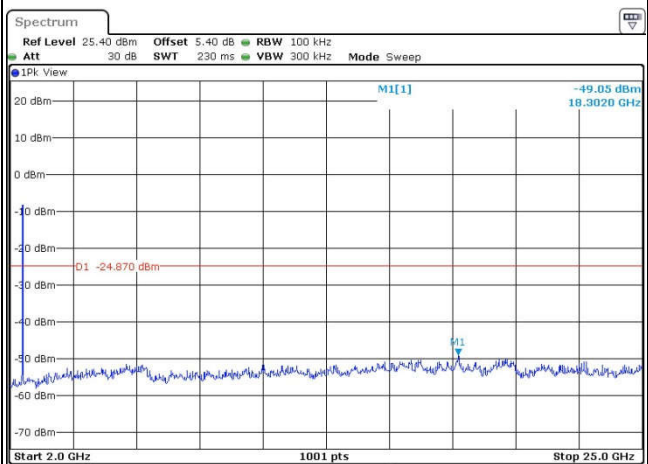
Date: 8 APR 2016 02:21:31

High Channel Plot

Date: 8 APR 2016 02:21:41

Spurious Emission 30MHz~3GHz

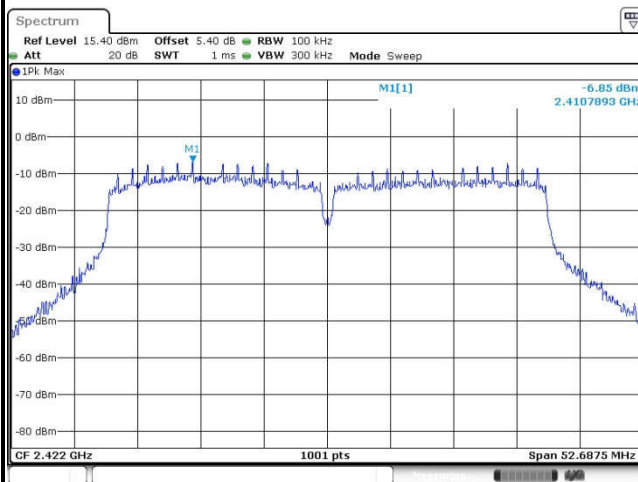
Date: 8 APR 2016 02:21:52

Spurious Emission 2GHz~25GHz

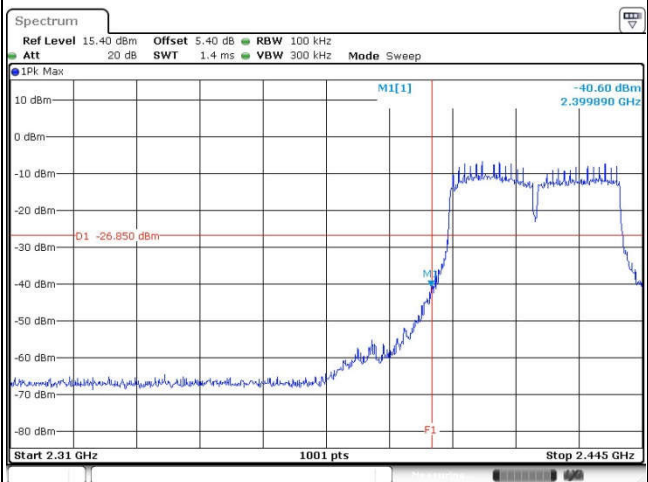
Date: 8 APR 2016 02:22:00



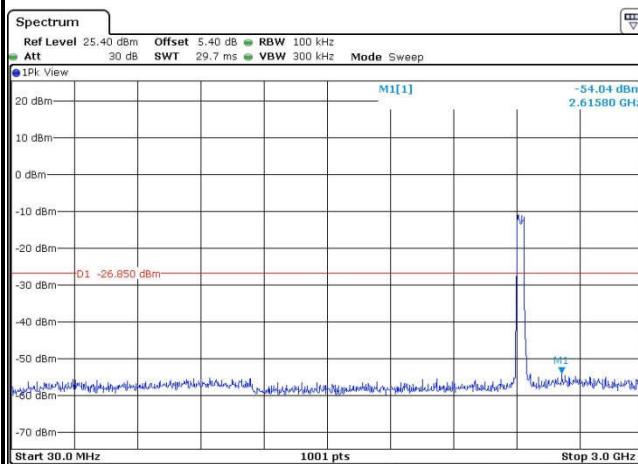
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz Low	Relative Humidity :	49~51%
Test Channel :	03	Test Engineer :	Issac Song

WLAN 802.11n HT40 Channel 03**100kHz PSD reference Level**

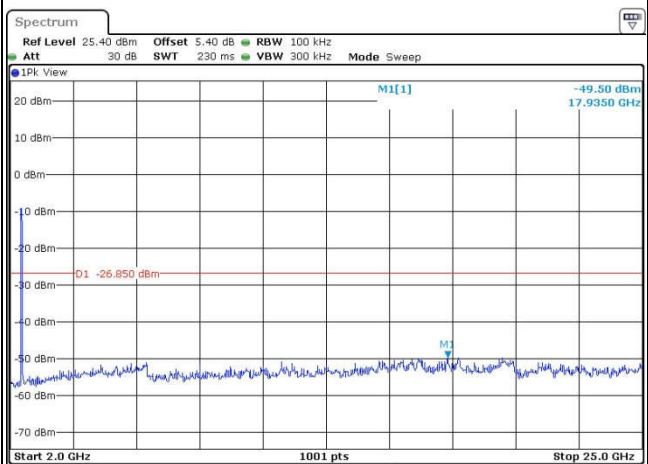
Date: 9 APR 2016 00:56:58

Low Channel Plot

Date: 9 APR 2016 00:57:10

Spurious Emission 30MHz~3GHz

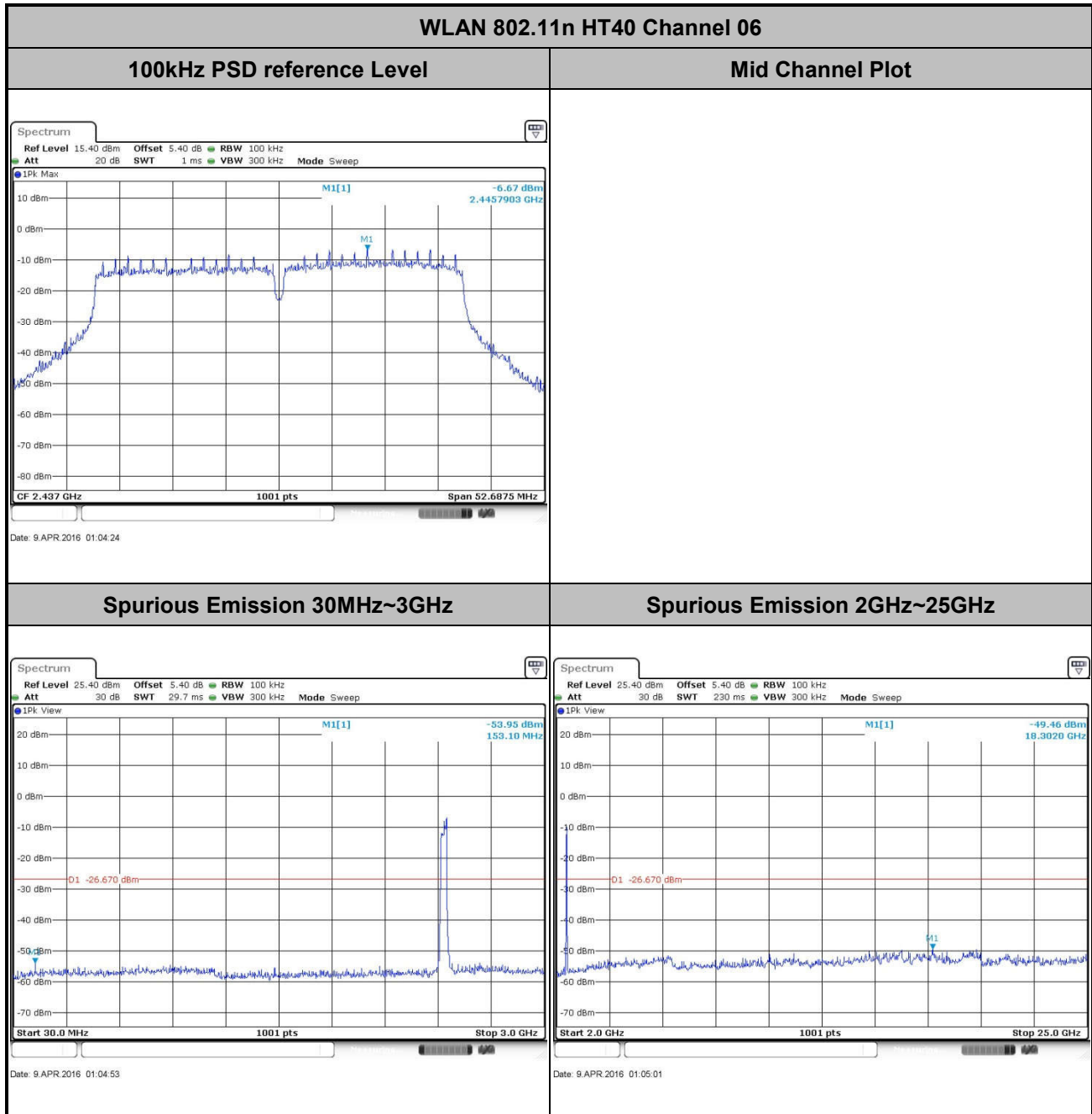
Date: 9 APR 2016 00:59:11

Spurious Emission 2GHz~25GHz

Date: 9 APR 2016 00:58:29



Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	49~51%
Test Channel :	06	Test Engineer :	Issac Song

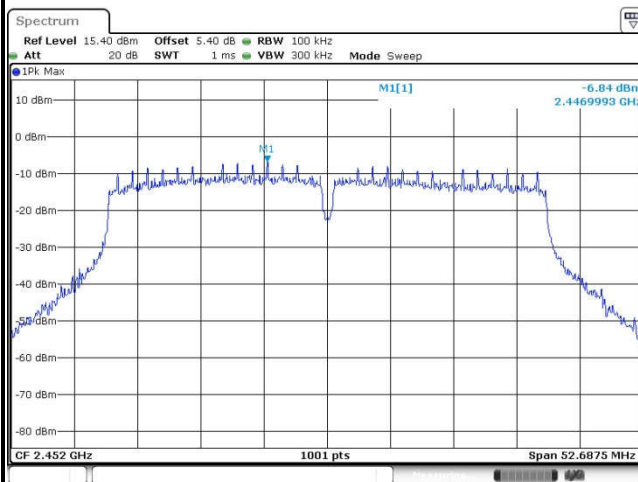




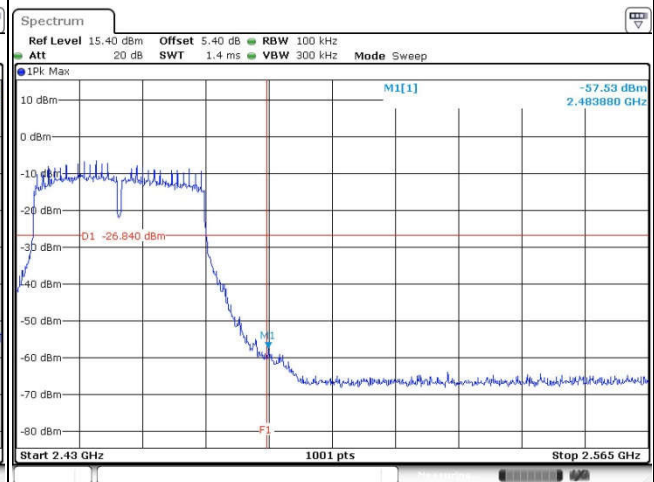
Number of TX :	2	Ant. :	2
Test Mode :	802.11n HT40	Temperature :	24~25°C
Test Band :	2.4GHz High	Relative Humidity :	49~51%
Test Channel :	09	Test Engineer :	Issac Song

WLAN 802.11n HT40 Channel 09

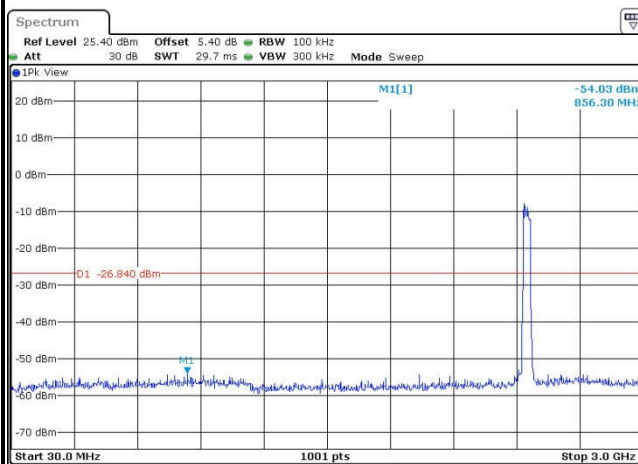
100kHz PSD reference Level



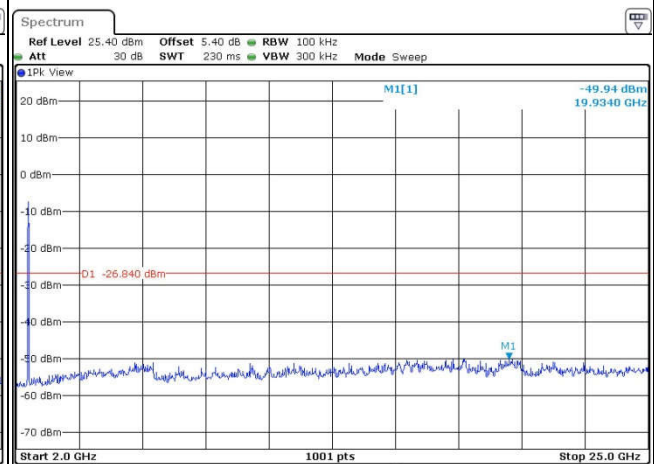
High Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 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

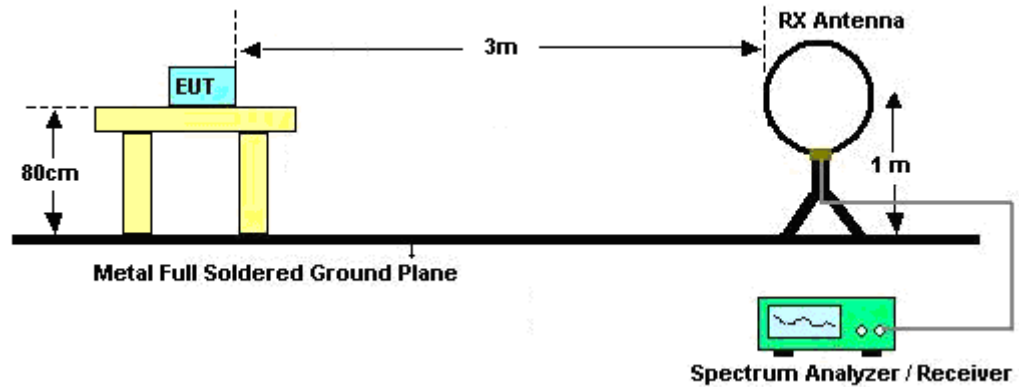
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

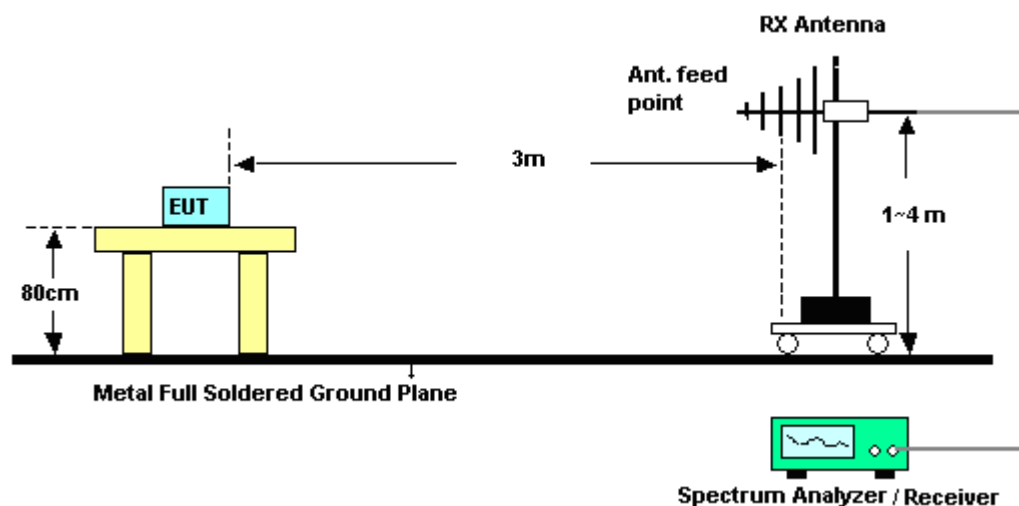
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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 measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. 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

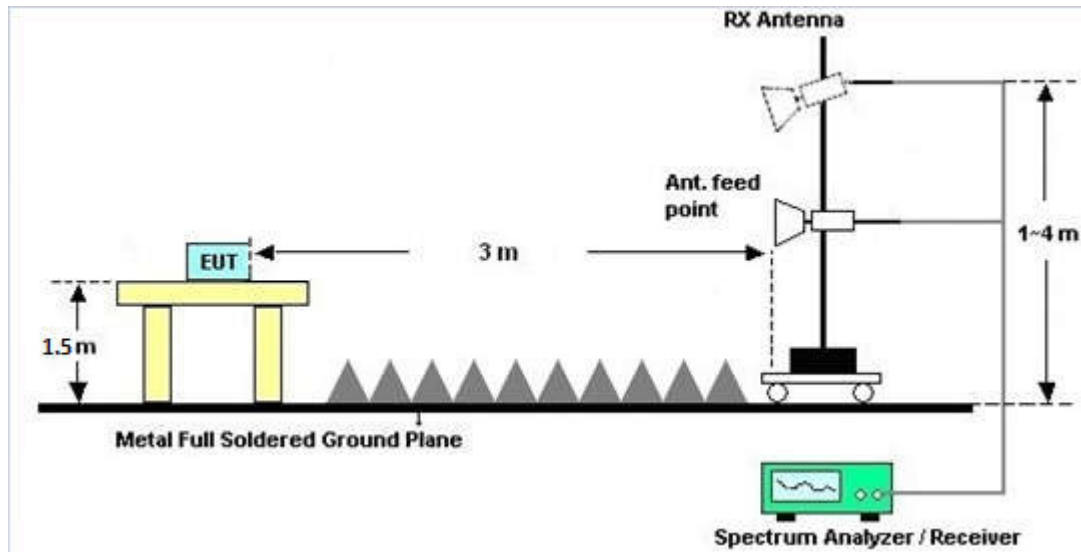
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B of this test report.

3.5.7 Duty Cycle

Please refer to Appendix C.

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

Please refer to Appendix B.

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.

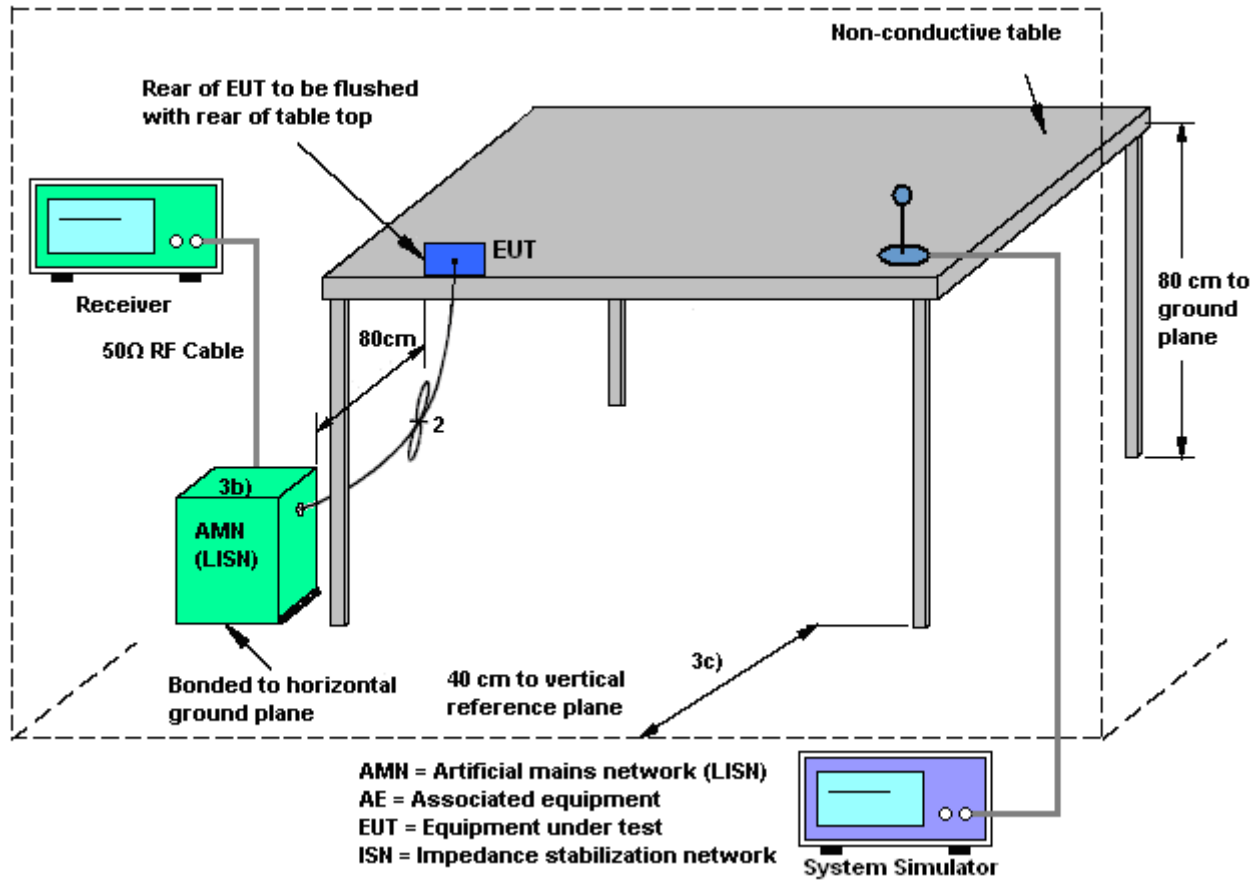
3.6.2 Measuring Instruments

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.

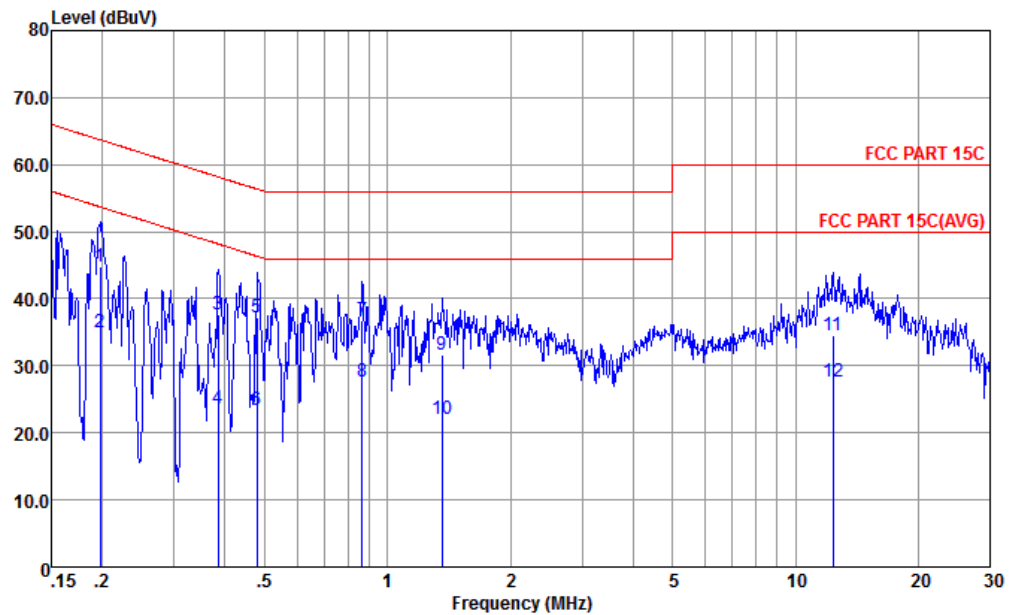
3.6.4 Test Setup





3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN Link (2.4G) + USB Cable (Charging from Adapter) + Earphone		



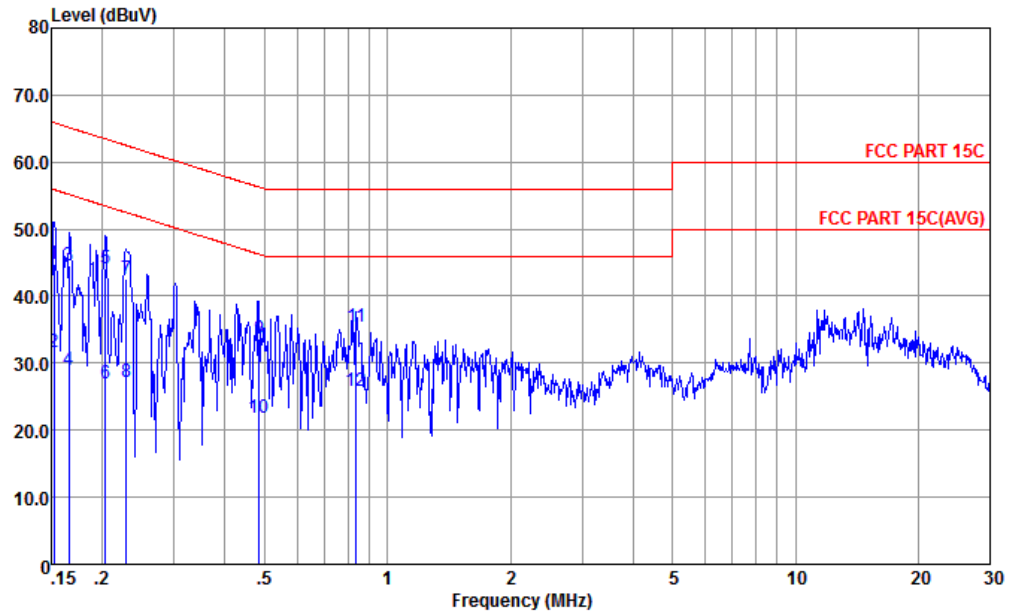
Site : CO01-KS
Condition : FCC PART 15C LISN-L-20151024 LINE

mode : Mode 1
: 990006780003793 #13

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.20	44.86	-18.85	63.71	34.50	0.23	10.13	QP
2	0.20	34.96	-18.75	53.71	24.60	0.23	10.13	Average
3	0.39	37.70	-20.47	58.17	27.30	0.23	10.17	QP
4	0.39	23.60	-24.57	48.17	13.20	0.23	10.17	Average
5	0.48	37.19	-19.17	56.36	26.80	0.23	10.16	QP
6	0.48	23.29	-23.07	46.36	12.90	0.23	10.16	Average
7	0.87	36.69	-19.31	56.00	26.30	0.25	10.14	QP
8 *	0.87	27.59	-18.41	46.00	17.20	0.25	10.14	Average
9	1.36	31.66	-24.34	56.00	21.30	0.22	10.14	QP
10	1.36	21.96	-24.04	46.00	11.60	0.22	10.14	Average
11	12.38	34.48	-25.52	60.00	23.90	0.26	10.32	QP
12	12.38	27.68	-22.32	50.00	17.10	0.26	10.32	Average



Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN Link (2.4G) + USB Cable (Charging from Adapter) + Earphone		



Site : CO01-KS
Condition : FCC PART 15C LISN-N-20151024 NEUTRAL

mode : Mode 1
: 990006780003793 #13

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	44.71	-21.16	65.87	34.30	0.30	10.11	QP
2	0.15	31.71	-24.16	55.87	21.30	0.30	10.11	Average
3	0.17	44.62	-20.54	65.16	34.20	0.30	10.12	QP
4	0.17	29.02	-26.14	55.16	18.60	0.30	10.12	Average
5 *	0.20	44.04	-19.41	63.45	33.60	0.31	10.13	QP
6	0.20	27.04	-26.41	53.45	16.60	0.31	10.13	Average
7	0.23	42.65	-19.83	62.48	32.20	0.31	10.14	QP
8	0.23	27.25	-25.23	52.48	16.80	0.31	10.14	Average
9	0.48	33.58	-22.69	56.27	23.10	0.32	10.16	QP
10	0.48	21.78	-24.49	46.27	11.30	0.32	10.16	Average
11	0.84	35.40	-20.60	56.00	24.90	0.36	10.14	QP
12	0.84	25.80	-20.20	46.00	15.30	0.36	10.14	Average

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. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the Antenna exceeds 6 dBi. 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 FCC 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.

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.

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.

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 1	Ant. 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	-0.50	-0.50	-0.50	2.51	0.00	0.00

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

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (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	Sep. 10, 2015	Mar. 23, 2016~ Apr. 09, 2016	Sep. 09, 2016	Conducted (TH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Oct. 24, 2015	Mar. 23, 2016~ Apr. 09, 2016	Oct. 23, 2016	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 20, 2016	Mar. 23, 2016~ Apr. 09, 2016	Jan. 19, 2017	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 20, 2016	Mar. 23, 2016~ Apr. 09, 2016	Jan. 19, 2017	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Sep. 10, 2015	Mar. 23, 2016~ Apr. 19, 2016	Sep. 09, 2016	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44GHz	Jun. 05, 2015	Mar. 23, 2016~ Apr. 19, 2016	Jun. 04, 2016	Radiation (03CH03-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 07, 2015	Mar. 23, 2016~ Apr. 19, 2016	Nov. 06, 2016	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	25MHz~2GHz	Mar. 12, 2016	Mar. 23, 2016~ Apr. 19, 2016	Mar. 11, 2017	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1356	1GHz~18GHz	Jun. 25, 2015	Mar. 23, 2016~ Apr. 19, 2016	Jun. 24, 2016	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Oct. 10, 2015	Mar. 23, 2016~ Apr. 19, 2016	Oct. 09, 2016	Radiation (03CH03-KS)
Amplifier	Burgeon	BPA-530	102212	0.01MHz~3000 MHz	Aug. 10, 2015	Mar. 23, 2016~ Apr. 19, 2016	Aug. 09, 2016	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Aug. 10, 2015	Mar. 23, 2016~ Apr. 19, 2016	Aug. 09, 2016	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Mar. 23, 2016~ Apr. 19, 2016	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Mar. 23, 2016~ Apr. 19, 2016	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Mar. 23, 2016~ Apr. 19, 2016	NCR	Radiation (03CH03-KS)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	Apr. 29, 2015	Mar. 28, 2016	Apr. 28, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	Mar. 28, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	Mar. 28, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	Mar. 28, 2016	Oct. 23, 2016	Conduction (CO01-KS)

NCR: No Calibration Required



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.5dB
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Appendix A. Conducted Test Results

Test Engineer:	Issac Song	Temperature:	24~25	°C
Test Date:	2016/3/23~2016/4/9	Relative Humidity:	49~51	%

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 1	Ant 2		
11b	1Mbps	1	1	2412	13.09	-	8.05	-	0.50	Pass
11b	1Mbps	1	6	2437	13.49	-	8.05	-	0.50	Pass
11b	1Mbps	1	11	2462	13.44	-	8.07	-	0.50	Pass
11g	6Mbps	1	1	2412	-	16.98	-	15.78	0.50	Pass
11g	6Mbps	1	6	2437	-	17.23	-	15.90	0.50	Pass
11g	6Mbps	1	11	2462	-	17.38	-	16.28	0.50	Pass
HT20	MCS0	1	1	2412	-	18.03	-	16.78	0.50	Pass
HT20	MCS0	1	6	2437	-	18.28	-	16.32	0.50	Pass
HT20	MCS0	1	11	2462	-	18.33	-	17.16	0.50	Pass
HT40	MCS0	1	3	2422	-	36.36	-	35.13	0.50	Pass
HT40	MCS0	1	6	2437	-	36.36	-	35.13	0.50	Pass
HT40	MCS0	1	9	2452	-	36.26	-	35.13	0.50	Pass
11b	1Mbps	2	1	2412	13.09	12.99	8.05	8.05	0.50	Pass
11b	1Mbps	2	6	2437	13.39	13.39	8.05	8.05	0.50	Pass
11b	1Mbps	2	11	2462	13.44	13.44	8.07	8.07	0.50	Pass
11g	6Mbps	2	1	2412	17.08	17.08	15.66	15.50	0.50	Pass
11g	6Mbps	2	6	2437	17.28	17.28	15.94	15.70	0.50	Pass
11g	6Mbps	2	11	2462	17.28	17.23	16.06	16.34	0.50	Pass
HT20	MCS0	2	1	2412	18.08	18.13	16.80	16.02	0.50	Pass
HT20	MCS0	2	6	2437	18.33	18.33	16.92	16.08	0.50	Pass
HT20	MCS0	2	11	2462	18.28	18.38	17.16	17.14	0.50	Pass
HT40	MCS0	2	3	2422	36.46	36.36	35.45	35.13	0.50	Pass
HT40	MCS0	2	6	2437	36.36	36.36	35.13	35.13	0.50	Pass
HT40	MCS0	2	9	2452	36.06	36.26	35.09	35.13	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					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	15.26	16.22		30.00	30.00	-0.50	-0.50	14.76	15.72	36.00	36.00	Pass
11b	1Mbps	1	6	2437	16.83	16.65		30.00	30.00	-0.50	-0.50	16.33	16.15	36.00	36.00	Pass
11b	1Mbps	1	11	2462	16.92	16.73		30.00	30.00	-0.50	-0.50	16.42	16.23	36.00	36.00	Pass
11g	6Mbps	1	1	2412	17.98	18.51		30.00	30.00	-0.50	-0.50	17.48	18.01	36.00	36.00	Pass
11g	6Mbps	1	6	2437	19.27	19.11		30.00	30.00	-0.50	-0.50	18.77	18.61	36.00	36.00	Pass
11g	6Mbps	1	11	2462	19.43	19.45		30.00	30.00	-0.50	-0.50	18.93	18.95	36.00	36.00	Pass
HT20	MCS0	1	1	2412	14.59	15.66		30.00	30.00	-0.50	-0.50	14.09	15.16	36.00	36.00	Pass
HT20	MCS0	1	6	2437	15.93	16.09		30.00	30.00	-0.50	-0.50	15.43	15.59	36.00	36.00	Pass
HT20	MCS0	1	11	2462	16.34	16.41		30.00	30.00	-0.50	-0.50	15.84	15.91	36.00	36.00	Pass
HT40	MCS0	1	3	2422	15.12	16.36		30.00	30.00	-0.50	-0.50	14.62	15.86	36.00	36.00	Pass
HT40	MCS0	1	6	2437	15.84	16.03		30.00	30.00	-0.50	-0.50	15.34	15.53	36.00	36.00	Pass
HT40	MCS0	1	9	2452	16.97	16.99		30.00	30.00	-0.50	-0.50	16.47	16.49	36.00	36.00	Pass
11b	1Mbps	2	1	2412	11.94	14.21	16.23	30.00		-0.50		15.73		36.00		Pass
11b	1Mbps	2	6	2437	13.42	14.47	16.99	30.00		-0.50		16.49		36.00		Pass
11b	1Mbps	2	11	2462	13.53	14.75	17.19	30.00		-0.50		16.69		36.00		Pass
11g	6Mbps	2	1	2412	14.72	16.35	18.62	30.00		-0.50		18.12		36.00		Pass
11g	6Mbps	2	6	2437	16.11	16.70	19.43	30.00		-0.50		18.93		36.00		Pass
11g	6Mbps	2	11	2462	16.33	17.03	19.70	30.00		-0.50		19.20		36.00		Pass
HT20	MCS0	2	1	2412	11.57	13.61	15.72	30.00		-0.50		15.22		36.00		Pass
HT20	MCS0	2	6	2437	12.90	14.12	16.56	30.00		-0.50		16.06		36.00		Pass
HT20	MCS0	2	11	2462	13.24	14.32	16.82	30.00		-0.50		16.32		36.00		Pass
HT40	MCS0	2	3	2422	12.00	14.15	16.22	30.00		-0.50		15.72		36.00		Pass
HT40	MCS0	2	6	2437	12.83	13.84	16.37	30.00		-0.50		15.87		36.00		Pass
HT40	MCS0	2	9	2452	13.93	14.62	17.30	30.00		-0.50		16.80		36.00		Pass

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

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	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	0.00	12.69	13.47	
11b	1Mbps	1	6	2437	0.00	0.00	14.26	14.21	
11b	1Mbps	1	11	2462	0.00	0.00	14.51	14.28	
11g	6Mbps	1	1	2412	0.23	0.20	11.47	12.22	
11g	6Mbps	1	6	2437	0.23	0.20	12.98	12.62	
11g	6Mbps	1	11	2462	0.23	0.20	13.14	12.98	
HT20	MCS0	1	1	2412	0.24	0.23	8.16	8.79	
HT20	MCS0	1	6	2437	0.24	0.23	9.44	9.72	
HT20	MCS0	1	11	2462	0.24	0.23	9.67	9.79	
HT40	MCS0	1	3	2422	0.48	0.47	8.05	9.04	
HT40	MCS0	1	6	2437	0.48	0.47	9.07	8.98	
HT40	MCS0	1	9	2452	0.48	0.47	9.53	9.62	
11b	1Mbps	2	1	2412	0.00	0.00	9.30	11.44	13.51
11b	1Mbps	2	6	2437	0.00	0.00	10.86	11.92	14.43
11b	1Mbps	2	11	2462	0.00	0.00	11.28	12.10	14.72
11g	6Mbps	2	1	2412	0.23	0.23	8.21	9.70	12.02
11g	6Mbps	2	6	2437	0.23	0.23	9.58	10.24	12.93
11g	6Mbps	2	11	2462	0.23	0.23	9.75	10.39	13.09
HT20	MCS0	2	1	2412	0.25	0.22	5.22	7.17	9.31
HT20	MCS0	2	6	2437	0.25	0.22	6.70	7.60	10.18
HT20	MCS0	2	11	2462	0.25	0.22	6.72	7.68	10.24
HT40	MCS0	2	3	2422	0.47	0.43	4.92	7.01	9.10
HT40	MCS0	2	6	2437	0.47	0.43	6.03	6.93	9.51
HT40	MCS0	2	9	2452	0.47	0.43	6.59	7.36	10.00

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	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	-15.93	-	-	-0.50	-0.50	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-13.56	-		-0.50	-0.50	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-13.71	-		-0.50	-0.50	8.00	8.00	Pass
11g	6Mbps	1	1	2412	-	-16.06		-0.50	-0.50	8.00	8.00	Pass
11g	6Mbps	1	6	2437	-	-14.49		-0.50	-0.50	8.00	8.00	Pass
11g	6Mbps	1	11	2462	-	-16.30		-0.50	-0.50	8.00	8.00	Pass
HT20	MCS0	1	1	2412	-	-17.53		-0.50	-0.50	8.00	8.00	Pass
HT20	MCS0	1	6	2437	-	-17.43		-0.50	-0.50	8.00	8.00	Pass
HT20	MCS0	1	11	2462	-	-17.96		-0.50	-0.50	8.00	8.00	Pass
HT40	MCS0	1	3	2422	-	-21.51		-0.50	-0.50	8.00	8.00	Pass
HT40	MCS0	1	6	2437	-	-21.22		-0.50	-0.50	8.00	8.00	Pass
HT40	MCS0	1	9	2452	-	-21.08		-0.50	-0.50	8.00	8.00	Pass
11b	1Mbps	2	1	2412	-19.77	-15.98	-12.97	2.51		8.00		Pass
11b	1Mbps	2	6	2437	-17.24	-15.20	-12.19	2.51		8.00		Pass
11b	1Mbps	2	11	2462	-17.18	-14.76	-11.75	2.51		8.00		Pass
11g	6Mbps	2	1	2412	-19.61	-17.89	-14.88	2.51		8.00		Pass
11g	6Mbps	2	6	2437	-18.11	-17.45	-14.44	2.51		8.00		Pass
11g	6Mbps	2	11	2462	-19.28	-17.30	-14.29	2.51		8.00		Pass
HT20	MCS0	2	1	2412	-23.51	-20.73	-17.72	2.51		8.00		Pass
HT20	MCS0	2	6	2437	-21.36	-17.91	-14.90	2.51		8.00		Pass
HT20	MCS0	2	11	2462	-20.27	-21.07	-17.26	2.51		8.00		Pass
HT40	MCS0	2	3	2422	-25.89	-23.31	-20.30	2.51		8.00		Pass
HT40	MCS0	2	6	2437	-24.03	-23.78	-20.77	2.51		8.00		Pass
HT40	MCS0	2	9	2452	-23.04	-22.91	-19.90	2.51		8.00		Pass

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



Appendix B. Radiated Spurious Emission

15C 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		2386.59	53.16	-20.84	74	57.59	27	5.59	37.02	100	103	P	H
		2390	41.65	-12.35	54	46.08	27	5.59	37.02	100	103	A	H
	*	2413.277	103.77	-	-	108.03	27.13	5.61	37	100	103	P	H
	*	2413.277	100.72	-	-	104.98	27.13	5.61	37	100	103	A	H
		2387.4	51.98	-22.02	74	56.41	27	5.59	37.02	386	133	P	V
		2390	40.82	-13.18	54	45.25	27	5.59	37.02	386	133	A	V
	*	2413.193	99.66	-	-	103.92	27.13	5.61	37	386	133	P	V
	*	2413.694	96.69	-	-	100.95	27.13	5.61	37	386	133	A	V
802.11b CH 06 2437MHz	*	2435.822	104.06	-	-	108.16	27.26	5.63	36.99	366	135	P	H
	*	2435.655	101.3	-	-	105.4	27.26	5.63	36.99	366	135	A	H
	*	2435.822	103.43	-	-	107.53	27.26	5.63	36.99	365	126	P	V
	*	2435.989	100.72	-	-	104.82	27.26	5.63	36.99	365	126	A	V
802.11b CH 11 2462MHz	*	2463.293	101.97	-	-	105.75	27.51	5.67	36.96	345	156	P	H
	*	2463.126	98.83	-	-	102.61	27.51	5.67	36.96	345	156	A	H
		2484	52.39	-21.61	74	56	27.64	5.69	36.94	345	156	P	H
		2484.12	41.04	-12.96	54	44.65	27.64	5.69	36.94	345	156	A	H
	*	2461.039	99.09	-	-	102.87	27.51	5.67	36.96	324	91	P	V
	*	2460.872	95.92	-	-	99.7	27.51	5.67	36.96	324	91	A	V
		2489	51.84	-22.16	74	55.29	27.77	5.71	36.93	324	91	P	V
		2484.56	40.77	-13.23	54	44.38	27.64	5.69	36.94	324	91	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz
WIFI 802.11b (Harmonic @ 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		4824	38.96	-35.04	74	60.42	31.51	9.13	62.1	100	360	P	H
		4824	37.61	-36.39	74	59.07	31.51	9.13	62.1	100	0	P	V
802.11b CH 06 2437MHz		4875	37.65	-36.35	74	58.89	31.59	9.2	62.03	100	360	P	H
		7311	41.24	-32.76	74	55.07	34.03	11.3	59.16	100	0	P	H
		4875	37.56	-36.44	74	58.8	31.59	9.2	62.03	100	0	P	V
		7311	39.82	-34.18	74	53.65	34.03	11.3	59.16	100	360	P	V
802.11b CH 11 2462MHz		4923	37.45	-36.55	74	58.48	31.67	9.27	61.97	100	360	P	H
		7386	40.58	-33.42	74	54.12	34.29	11.29	59.12	100	0	P	H
		4923	37.19	-36.81	74	58.22	31.67	9.27	61.97	100	0	P	V
		7386	40.11	-33.89	74	53.65	34.29	11.29	59.12	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 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 01 2412MHz		2382.09	52.07	-21.93	74	56.57	26.95	5.57	37.02	104	138	P	H
		2390	42.15	-11.85	54	46.58	27	5.59	37.02	104	138	A	H
	*	2407.264	102.02	-	-	106.28	27.13	5.61	37	104	138	P	H
	*	2407.097	94.78	-	-	99.04	27.13	5.61	37	104	138	A	H
		2330.97	51.97	-22.03	74	56.66	26.82	5.5	37.01	105	96	P	V
		2389.65	41.9	-12.10	54	46.33	27	5.59	37.02	105	96	A	V
	*	2409.352	101.97	-	-	106.23	27.13	5.61	37	105	96	P	V
	*	2409.185	94.43	-	-	98.69	27.13	5.61	37	105	96	A	V
802.11g CH 06 2437MHz	*	2442.084	104.34	-	-	108.27	27.39	5.65	36.97	138	136	P	H
	*	2441.583	97.22	-	-	101.15	27.39	5.65	36.97	138	136	A	H
	*	2439.245	103.17	-	-	107.1	27.39	5.65	36.97	100	102	P	V
	*	2439.245	95.75	-	-	99.68	27.39	5.65	36.97	100	102	A	V
802.11g CH 11 2462MHz	*	2464.963	103.18	-	-	106.96	27.51	5.67	36.96	109	133	P	H
	*	2464.629	95.54	-	-	99.32	27.51	5.67	36.96	109	133	A	H
		2486.44	53.01	-20.99	74	56.62	27.64	5.69	36.94	109	133	P	H
		2484.04	42.29	-11.71	54	45.9	27.64	5.69	36.94	109	133	A	H
	*	2464.128	102.44	-	-	106.22	27.51	5.67	36.96	100	114	P	V
	*	2466.717	95.29	-	-	99.07	27.51	5.67	36.96	100	114	A	V
		2491.68	52.92	-21.08	74	56.37	27.77	5.71	36.93	100	114	P	V
		2483.56	42.07	-11.93	54	45.68	27.64	5.69	36.94	100	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 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		4824	37.43	-36.57	74	58.89	31.51	9.13	62.1	100	360	P	H
CH 01		4824	38.95	-35.05	74	60.41	31.51	9.13	62.1	100	0	P	V
2412MHz													
802.11g		4875	39.21	-34.79	74	60.45	31.59	9.2	62.03	100	360	P	H
CH 06		7311	40.22	-33.78	74	54.05	34.03	11.3	59.16	100	0	P	H
2437MHz		4875	37.73	-36.27	74	58.97	31.59	9.2	62.03	100	0	P	V
		7311	41.04	-32.96	74	54.87	34.03	11.3	59.16	100	360	P	V
802.11g		4923	37.45	-36.55	74	58.48	31.67	9.27	61.97	100	360	P	H
CH 11		7386	40.46	-33.54	74	54	34.29	11.29	59.12	100	0	P	H
2462MHz		4923	37.71	-36.29	74	58.74	31.67	9.27	61.97	100	0	P	V
		7386	42.38	-31.62	74	55.92	34.29	11.29	59.12	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (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)
802.11n HT20 CH 01 2412MHz		2350.77	51.68	-22.32	74	56.31	26.86	5.52	37.01	100	96	P	H
		2390	42	-12.00	54	46.43	27	5.59	37.02	100	96	A	H
	*	2409.937	99.91	-	-	104.17	27.13	5.61	37	100	96	P	H
	*	2410.688	92.29	-	-	96.55	27.13	5.61	37	100	96	A	H
		2378.94	52.77	-21.23	74	57.27	26.95	5.57	37.02	300	68	P	V
		2389.92	41.58	-12.42	54	46.01	27	5.59	37.02	300	68	A	V
	*	2416.7	95.97	-	-	100.23	27.13	5.61	37	300	68	P	V
	*	2416.616	88.68	-	-	92.94	27.13	5.61	37	300	68	A	V
802.11n HT20 CH 06 2437MHz	*	2442.418	101.37	-	-	105.3	27.39	5.65	36.97	100	97	P	H
	*	2443.169	94.02	-	-	97.95	27.39	5.65	36.97	100	97	A	H
	*	2439.663	97.52	-	-	101.45	27.39	5.65	36.97	330	68	P	V
	*	2441.333	90.04	-	-	93.97	27.39	5.65	36.97	330	68	A	V
802.11n HT20 CH 11 2462MHz	*	2463.376	100.85	-	-	104.63	27.51	5.67	36.96	120	100	P	H
	*	2463.209	93.3	-	-	97.08	27.51	5.67	36.96	120	100	A	H
		2483.6	52.79	-21.21	74	56.4	27.64	5.69	36.94	120	100	P	H
		2485.24	42.68	-11.32	54	46.29	27.64	5.69	36.94	120	100	A	H
	*	2460.454	97.88	-	-	101.66	27.51	5.67	36.96	327	82	P	V
	*	2467.134	90.35	-	-	94.13	27.51	5.67	36.96	327	82	A	V
		2491.36	52.3	-21.70	74	55.75	27.77	5.71	36.93	327	82	P	V
		2483.64	42.06	-11.94	54	45.67	27.64	5.69	36.94	327	82	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz
WIFI 802.11n HT20 (Harmonic @ 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)
802.11n HT20 CH 01 2412MHz		4824	38.66	-35.34	74	60.12	31.51	9.13	62.1	100	360	P	H
		4824	37.67	-36.33	74	59.13	31.51	9.13	62.1	100	0	P	V
802.11n HT20 CH 06 2437MHz		4875	37.13	-36.87	74	58.37	31.59	9.2	62.03	100	360	P	H
		7311	40.39	-33.61	74	54.22	34.03	11.3	59.16	100	0	P	H
		4875	38.01	-35.99	74	59.25	31.59	9.2	62.03	100	0	P	V
		7311	40.85	-33.15	74	54.68	34.03	11.3	59.16	100	360	P	V
802.11n HT20 CH 11 2462MHz		4923	37.52	-36.48	74	58.55	31.67	9.27	61.97	100	360	P	H
		7386	39.66	-34.34	74	53.2	34.29	11.29	59.12	100	0	P	H
		4923	37.13	-36.87	74	58.16	31.67	9.27	61.97	100	0	P	V
		7386	40.65	-33.35	74	54.19	34.29	11.29	59.12	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (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)
802.11n HT40 CH 03 2422MHz		2388.93	60.99	-13.01	74	65.42	27	5.59	37.02	155	129	P	H
		2387.22	43.91	-10.09	54	48.34	27	5.59	37.02	155	129	A	H
	*	2423.714	96.4	-	-	100.5	27.26	5.63	36.99	155	129	P	H
	*	2423.881	89	-	-	93.1	27.26	5.63	36.99	155	129	A	H
		2485.36	54.29	-19.71	74	57.9	27.64	5.69	36.94	155	129	P	H
		2484.36	42.79	-11.21	54	46.4	27.64	5.69	36.94	155	129	A	H
		2387.76	59.78	-14.22	74	64.21	27	5.59	37.02	155	103	P	V
		2388.03	44.09	-9.91	54	48.52	27	5.59	37.02	155	103	A	V
	*	2410.271	95.98	-	-	100.24	27.13	5.61	37	155	103	P	V
	*	2409.603	88.91	-	-	93.17	27.13	5.61	37	155	103	A	V
		2497.48	52.94	-21.06	74	56.39	27.77	5.71	36.93	155	103	P	V
		2485.28	42.71	-11.29	54	46.32	27.64	5.69	36.94	155	103	A	V
802.11n HT40 CH 06 2437MHz		2389.65	57.05	-16.95	74	61.48	27	5.59	37.02	165	146	P	H
		2388.93	43.12	-10.88	54	47.55	27	5.59	37.02	165	146	A	H
	*	2446.593	98.75	-	-	102.68	27.39	5.65	36.97	165	146	P	H
	*	2447.344	91.46	-	-	95.39	27.39	5.65	36.97	165	146	A	H
		2483.8	57.27	-16.73	74	60.88	27.64	5.69	36.94	165	146	P	H
		2483.92	43.46	-10.54	54	47.07	27.64	5.69	36.94	165	146	A	H
		2385.69	55.69	-18.31	74	60.12	27	5.59	37.02	152	100	P	V
		2389.47	42.53	-11.47	54	46.96	27	5.59	37.02	152	100	A	V
	*	2451.52	95.97	-	-	99.9	27.39	5.65	36.97	152	100	P	V
	*	2453.273	88.14	-	-	92.07	27.39	5.65	36.97	152	100	A	V
		2483.72	56.01	-17.99	74	59.62	27.64	5.69	36.94	152	100	P	V
		2485.04	42.91	-11.09	54	46.52	27.64	5.69	36.94	152	100	A	V



802.11n HT40 CH 09 2452MHz		2388.03	56.43	-17.57	74	60.86	27	5.59	37.02	123	144	P	H
		2388.75	42.56	-11.44	54	46.99	27	5.59	37.02	123	144	A	H
	*	2444.589	98.05	-	-	101.98	27.39	5.65	36.97	123	144	P	H
	*	2443.42	90.89	-	-	94.82	27.39	5.65	36.97	123	144	A	H
		2485.44	60.19	-13.81	74	63.8	27.64	5.69	36.94	123	144	P	H
		2485.92	44.12	-9.88	54	47.73	27.64	5.69	36.94	123	144	A	H
		2386.68	54.37	-19.63	74	58.8	27	5.59	37.02	149	88	P	V
		2387.31	41.78	-12.22	54	46.21	27	5.59	37.02	149	88	A	V
	*	2448.597	96.39	-	-	100.32	27.39	5.65	36.97	149	88	P	V
	*	2449.599	88.98	-	-	92.91	27.39	5.65	36.97	149	88	A	V
		2485.8	58.54	-15.46	74	62.15	27.64	5.69	36.94	149	88	P	V
		2485.92	43.81	-10.19	54	47.42	27.64	5.69	36.94	149	88	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C 2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 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)
802.11n		4845	37.97	-36.03	74	59.37	31.53	9.15	62.08	100	360	P	H
HT40		7266	41.06	-32.94	74	54.99	33.93	11.31	59.17	100	0	P	H
CH 03		4845	37.55	-36.45	74	58.95	31.53	9.15	62.08	100	0	P	V
2422MHz		7266	40.38	-33.62	74	54.31	33.93	11.31	59.17	100	360	P	V
802.11n		4875	37.2	-36.80	74	58.44	31.59	9.2	62.03	100	360	P	H
HT40		7311	40.54	-33.46	74	54.37	34.03	11.3	59.16	100	0	P	H
CH 06		4875	38.42	-35.58	74	59.66	31.59	9.2	62.03	100	0	P	V
2437MHz		7311	39.23	-34.77	74	53.06	34.03	11.3	59.16	100	360	P	V
802.11n		4905	37.05	-36.95	74	58.15	31.64	9.25	61.99	100	360	P	H
HT40		7356	39.31	-34.69	74	52.96	34.19	11.29	59.13	100	0	P	H
CH 09		4905	37.9	-36.10	74	59	31.64	9.25	61.99	100	0	P	V
2452MHz		7356	38.79	-35.21	74	52.44	34.19	11.29	59.13	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15C Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (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 HT40 LF		34.85	23.06	-16.94	40	35.35	17.9	0.71	30.9	-	-	P	H
		94.02	26.04	-17.46	43.5	42.83	12.46	1.17	30.42	-	-	P	H
		156.1	32.23	-11.27	43.5	47.68	13.44	1.51	30.4	106	247	P	H
		210.42	28.97	-14.53	43.5	46.43	11.23	1.73	30.42	-	-	P	H
		408.3	25.47	-20.53	46	36.57	17.07	2.5	30.67	-	-	P	H
		995.15	29.38	-24.62	54	32.1	23.78	4.09	30.59	-	-	P	H
		35.82	30.05	-9.95	40	43.07	17.16	0.72	30.9	-	-	P	V
		46.49	30.95	-9.05	40	49.28	11.63	0.84	30.8	114	83	P	V
		93.05	29.87	-13.63	43.5	46.83	12.32	1.16	30.44	-	-	P	V
		162.89	28.36	-15.14	43.5	44.21	13.01	1.54	30.4	-	-	P	V
		409.27	24.87	-21.13	46	35.95	17.08	2.5	30.66	-	-	P	V
		970.9	29	-25.00	54	31.83	23.68	4.03	30.54	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.209(c).
!	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.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. 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)

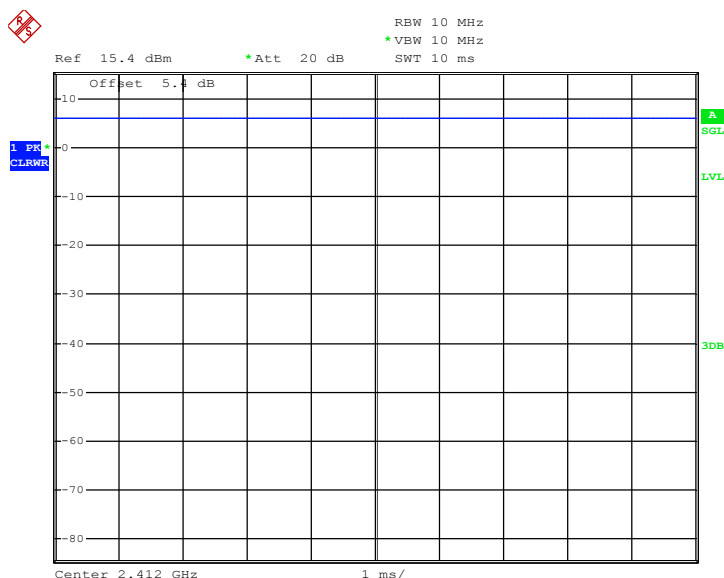
= -10.46(dB)

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

Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b ANT 1+2	100	-	-	10Hz
802.11g ANT 1+2	94.95	2.07	0.48	1kHz
2.4GHz 802.11n HT20 ANT 1+2	95.07	1.93	0.52	1kHz
2.4GHz 802.11n HT40 ANT 1+2	90.63	0.95	1.05	3kHz

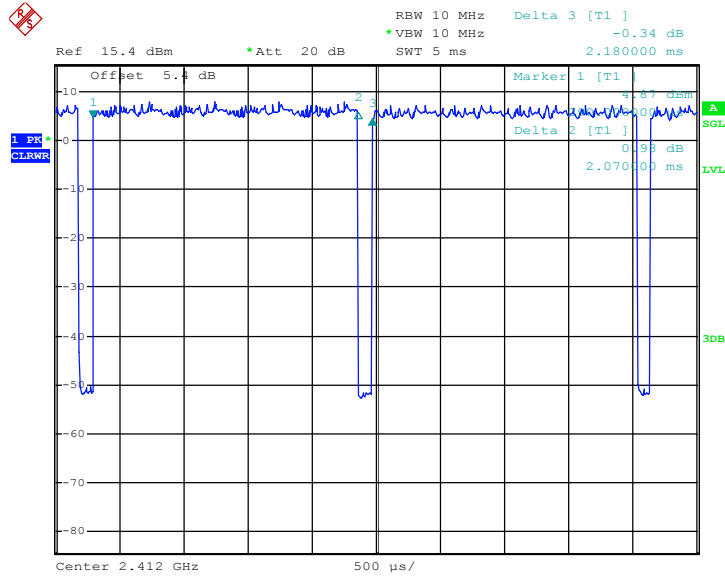
802.11b



Date: 23.MAR.2016 02:04:52



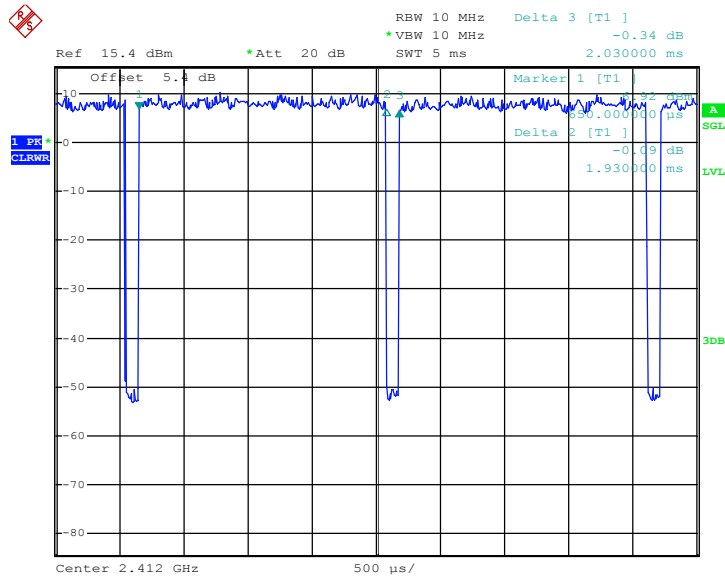
802.11g



Date: 23.MAR.2016 02:06:37



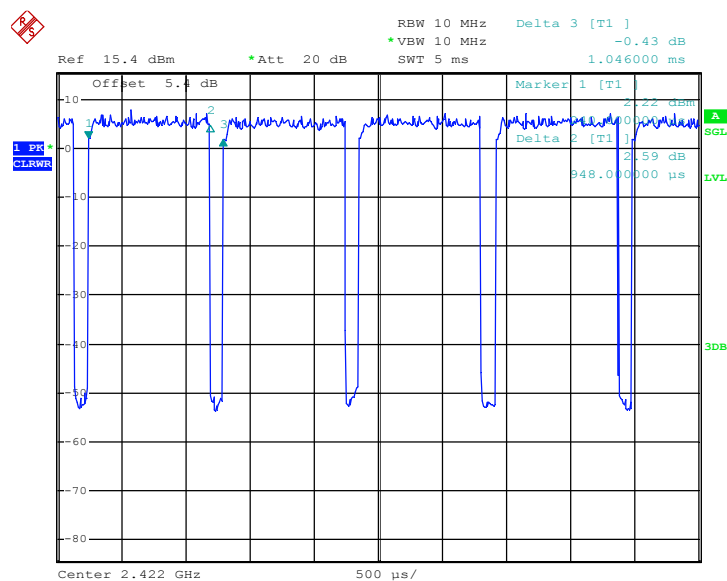
2.4GHz 802.11n HT20



Date: 23.MAR.2016 01:49:21



2.4GHz 802.11n HT40



Date: 23.MAR.2016 01:45:24