FCC RF Test Report

APPLICANT	:	ZTE CORPORATION
EQUIPMENT	:	LTE AND CDMA mobile hotspot
BRAND NAME	:	ZTE
MODEL NAME	:	EuFi891
FCC ID	:	Q78-EUFI891
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Jun. 19, 2012 and completely tested on Nov. 21, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR261903-02	Rev. 01	Initial issue of report	Dec. 12, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	A8.2(a)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.2	15.247(b)	A8.4	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	A8.2(b)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	A8.5	Conducted Band Edges	≤ 20dBc	Pass	-
			Conducted Spurious Emission		Pass	-
3.5	15.247(d)	A8.5	Radiated Band Edges	15.209(a) & 15.247(d)	Pass	-
			Radiated Spurious Emission		Pass	Under limit 7.51 dB at 2390.000 MHz
3.6	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 5.87 dB at 0.440 MHz
3.7	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Shenzhen, Guangdong, 518057, P.R.China

1.2 Manufacturer

ZTE CORPORATION

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Shenzhen, Guangdong, 518057, P.R.China

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	LTE AND CDMA mobile hotspot
Brand Name	ZTE
Model Name	EuFi891
FCC ID	Q78-EUFI891
EUT supports Radios application	CDMA /EV-DO/ LTE / WLAN 11bgn
HW Version	xh7C_V1.0
SW Version	USCC_EuFi891V1.0.0B02
Test Sample	Sample 1: SN 001 Sample 2: SN 002 Sample number is lab. internal controlled.
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The 2nd sample is electrically identical with sample 1 for all U.S. operating bands, and devices are tested and found compliance with FCC standard.

Product Specification subjective to this standard	
Tx/Rx Frequency Range	2412 MHz ~ 2462 MHz
Number of Channels	11
Carrier Frequency of Each Channel	2412+(n-1)*5 MHz; n=1~11
Maximum Output Power to Antenna	802.11b : 17.75 dBm (0.0596 W) 802.11g : 21.32 dBm (0.1355 W) 802.11n HT20 : 21.85 dBm (0.1531 W)
Antenna Type	PCB Antenna with gain 1 dBi
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.			
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH01-KS	CO01-KS	03CH01-KS	149928/4086E-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v01
- FCC TCB Workshop 2012, April
- ANSI C63.4-2003 and ANSI C63.10-2009
- IC RSS-210 Issue 8
- IC RSS-Gen Issue 3

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	VOSTRO 1450	PPD-AR5B195	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437	-	-

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate as below table and the highest power data rates (11b, 11g, and 11n HT-20 modes) were chosen for full test in the following sections to demonstrate compliance to the FCC limit line.

Channel	Frequency	2.4GHz 802.11b RF Power (dBm)			
		DSSS Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	17.42	17.56	17.69	17.59
CH 06	2437 MHz	17.19	17.32	17.56	17.48
CH 11	2462 MHz	**17.75**	17.51	17.68	17.69

Channel	Frequency	2.4GHz 802.11g RF Power (dBm)							
		OFDM Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	21.19	21.15	21.08	21.12	21.06	21.03	20.96	20.78
CH 06	2437 MHz	20.78	20.94	20.73	21.05	20.96	20.46	20.56	20.47
CH 11	2462 MHz	**21.32**	20.89	20.57	20.75	20.65	20.95	20.94	20.96

Channel	Frequency	2.4GHz 802.11n HT20 RF Power (dBm)							
		OFDM Data Rate							
		MCS=0	MCS=1	MCS=2	MCS=3	MCS=4	MCS=5	MCS=6	MCS=7
CH 01	2412 MHz	**21.85**	21.32	21.36	21.46	21.41	21.52	21.36	21.31
CH 06	2437 MHz	21.01	21.25	21.23	21.26	21.19	21.27	21.32	21.31
CH 11	2462 MHz	21.19	21.25	21.21	21.34	21.33	21.15	21.27	21.26

2.3 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and ANSI C63.10-2009 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 KHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

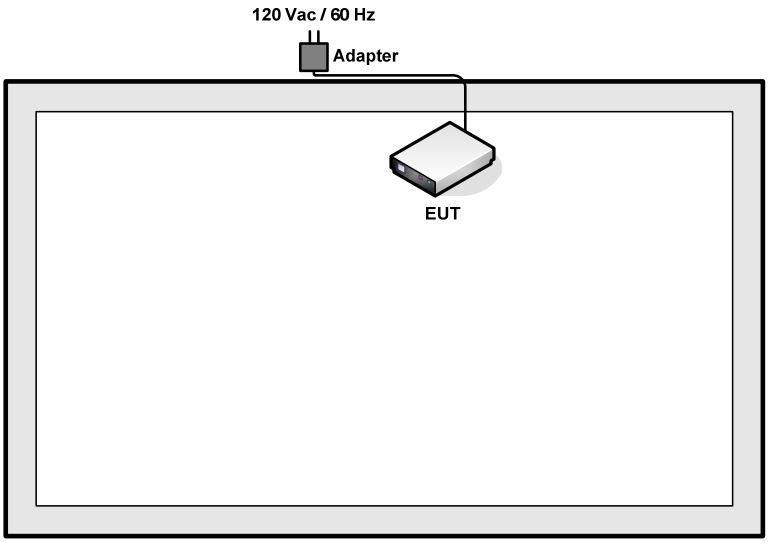
Pre-scanned tests, X, Y, Z in three orthogonal panels, were conducted to determine the final configuration from all possible combinations.

The following tables are showing the test modes as the worst cases (Y plane) and recorded in this report.

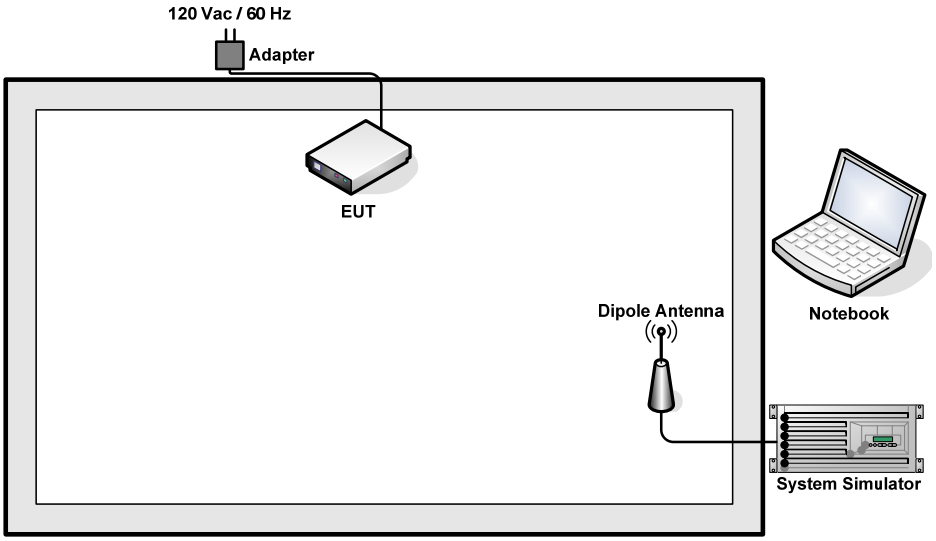
<table>
<tr><th colspan="2">Test Cases</th></tr>
<tr><th>Test Item</th><td>802.11b (Modulation : DSSS)
802.11g/n (Modulation : OFDM)</td></tr>
<tr><th>Conducted TCs</th><td>
<table>
<tr><th>Test Mode</th><th>802.11b</th><th>802.11g</th><th>802.11n HT-20</th></tr>
<tr><th>CH01</th><td>1</td><td>4</td><td>7</td></tr>
<tr><th>CH06</th><td>2</td><td>5</td><td>8</td></tr>
<tr><th>CH11</th><td>3</td><td>6</td><td>9</td></tr>
</table>
</td></tr>
<tr><th>Radiated TCs</th><td>
<table>
<tr><th>Test Mode</th><th>802.11b</th><th>802.11g</th><th>802.11n HT-20</th></tr>
<tr><th>CH01</th><td>1</td><td>4</td><td>7</td></tr>
<tr><th>CH06</th><td>2</td><td>5</td><td>8</td></tr>
<tr><th>CH11</th><td>3</td><td>6</td><td>9</td></tr>
</table>
</td></tr>
<tr><th>AC Conducted Emission</th><td>Mode 1 ： CDMA2000 BC0 Idle + WLAN Link + Adapter</td></tr>
</table>

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 RF Utility

The programmed RF utility “QRCT”, is installed in PC to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 KHz.

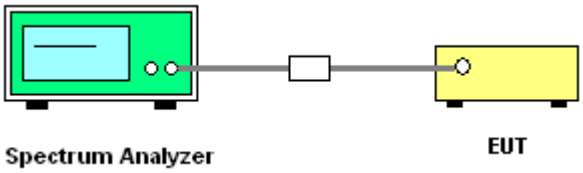
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable. The path loss was compensated to the results for each measurement.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 1-5% of the emission bandwidth (EBW).Set the Video bandwidth (VBW) ≥ 3 * RBW. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 KHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

3.1.4 Test Setup

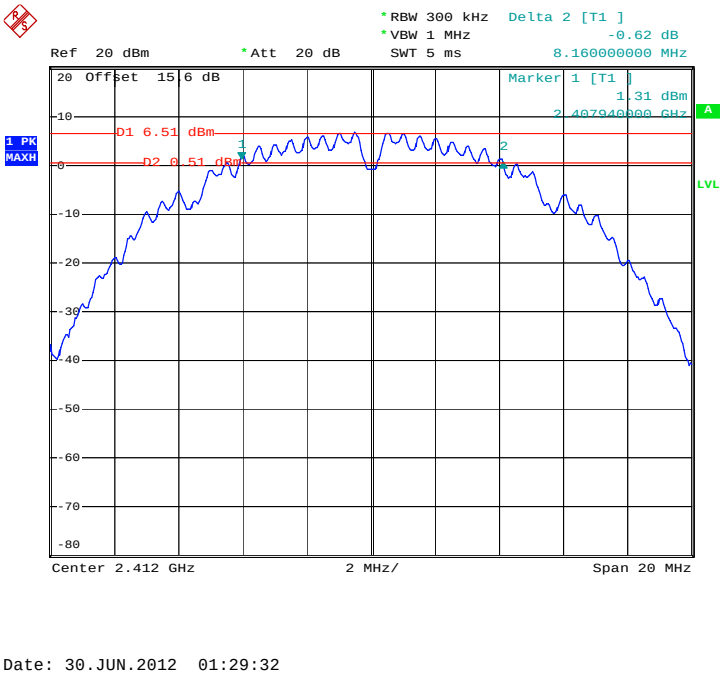


3.1.5 Test Result of 6dB Bandwidth

Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	8.16	0.5	Pass
06	2437	8.16	0.5	Pass
11	2462	8.16	0.5	Pass

6 dB Bandwidth Plot on 802.11b Channel 01



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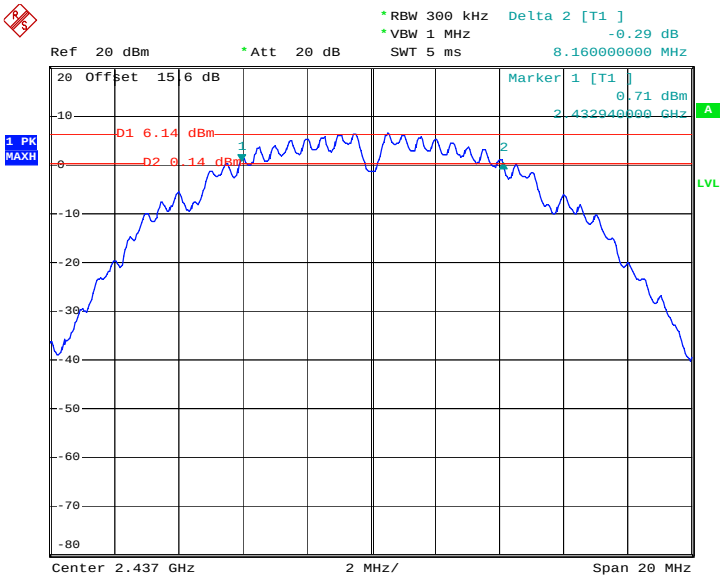
6 dB Bandwidth Plot on 802.11b Channel 06



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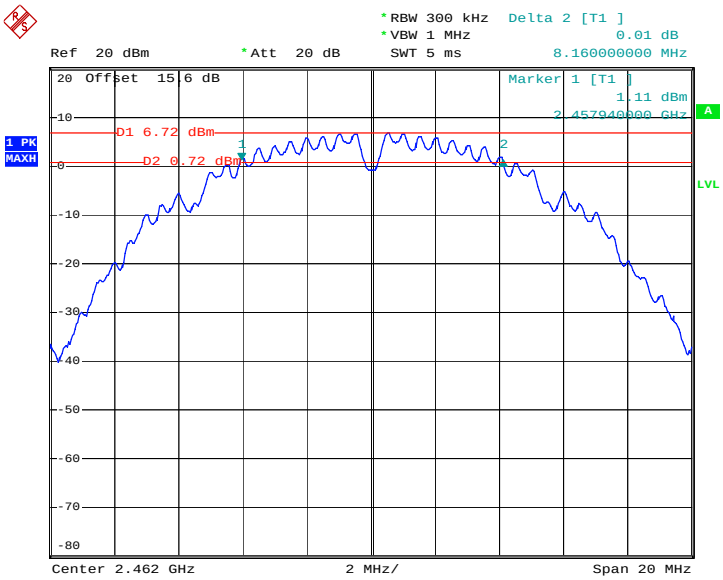
6 dB Bandwidth Plot on 802.11b Channel 11



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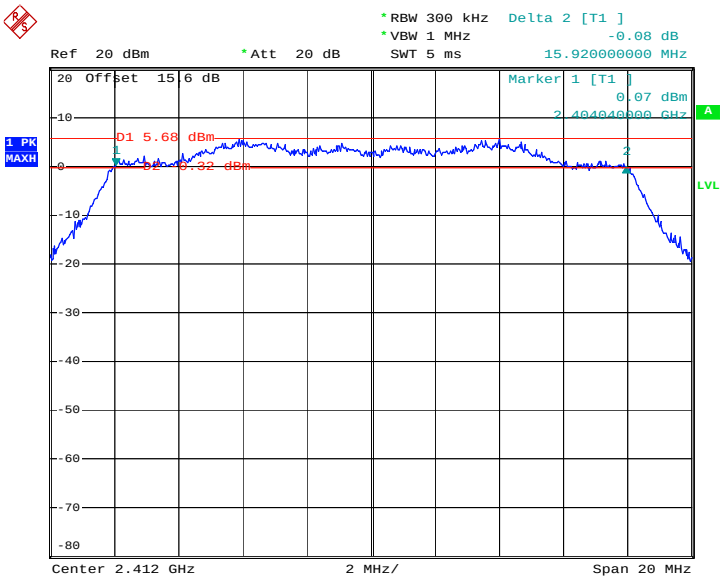
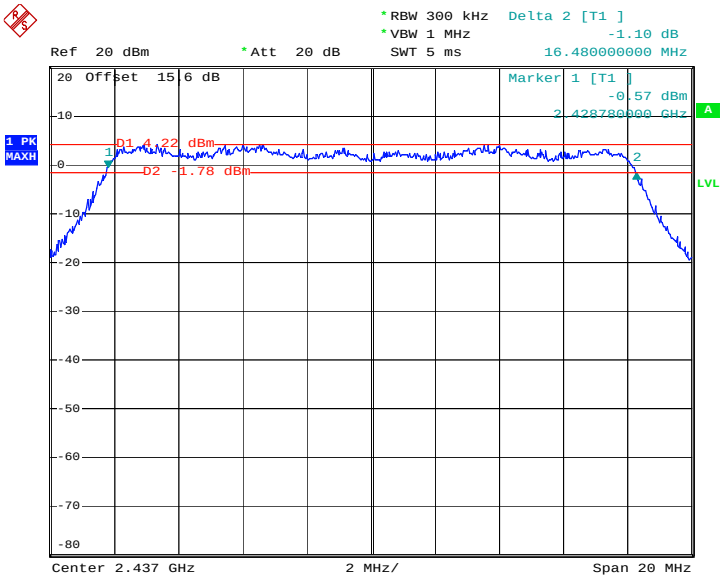
Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	15.92	0.5	Pass
06	2437	16.48	0.5	Pass
11	2462	16.00	0.5	Pass

6 dB Bandwidth Plot on 802.11g Channel 01



6 dB Bandwidth Plot on 802.11g Channel 06



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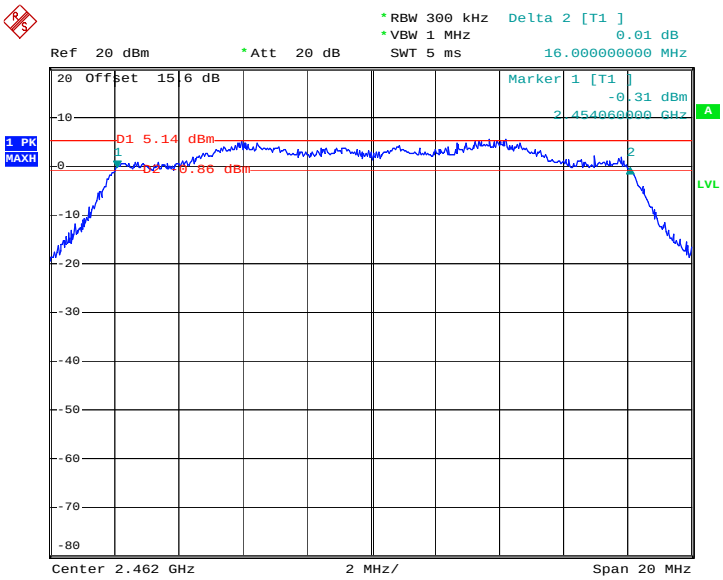
6 dB Bandwidth Plot on 802.11g Channel 11



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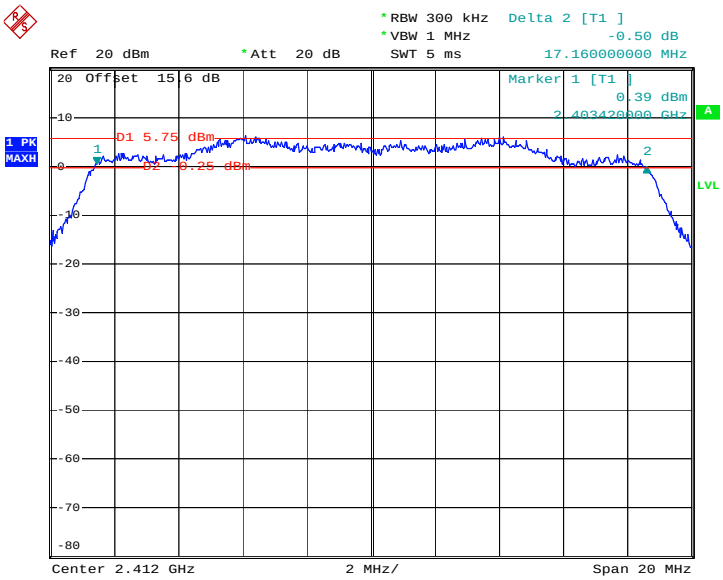
Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT-20 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	17.16	0.5	Pass
06	2437	17.52	0.5	Pass
11	2462	17.16	0.5	Pass

6 dB Bandwidth Plot on 802.11n HT-20 Channel 01



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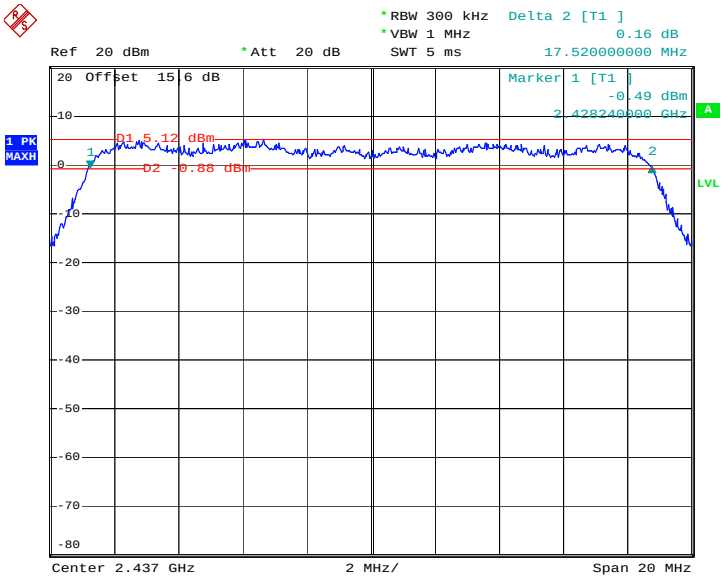
6 dB Bandwidth Plot on 802.11n HT-20 Channel 06



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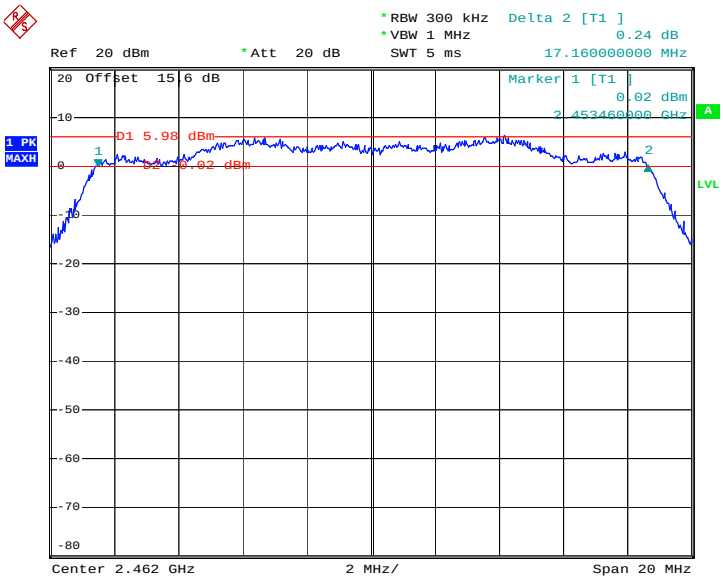
6 dB Bandwidth Plot on 802.11n HT-20 Channel 11



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3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

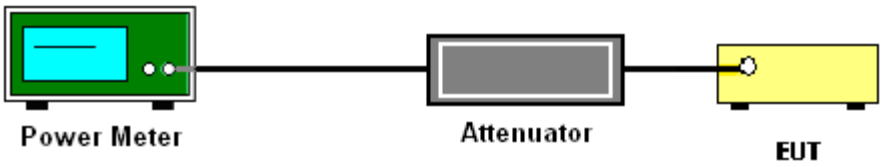
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows the Measurement Procedure 7.2.1.3 Option 3(peak power meter method) of FCC KDB No. 558074 DTS Meas. Guidance DR01.
2. The RF output of EUT was connected to the power meter by a low loss cable
3. Measure the power by power meter.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	17.42	30	Pass
06	2437	17.19	30	Pass
11	2462	17.75	30	Pass

Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	21.19	30	Pass
06	2437	20.78	30	Pass
11	2462	21.32	30	Pass

Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT-20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	21.85	30	Pass
06	2437	21.01	30	Pass
11	2462	21.19	30	Pass

3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%
Duty Cycle:	97.69%	Duty Factor:	0.10dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	14.06
06	2437	13.97
11	2462	14.08

Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%
Duty Cycle:	86.79%	Duty Factor:	0.62dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	11.44
06	2437	11.28
11	2462	11.27

Test Mode :	802.11n HT20	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%
Duty Cycle:	86.09%	Duty Factor:	0.65dB

Channel	Frequency (MHz)	802.11n HT20 Average Output Power (dBm)
01	2412	12.06
06	2437	11.86
11	2462	11.98

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3KHz band at any time interval of continuous transmission.

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 5.3.1 (Peak PSD) of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable. The path loss was compensated to the results for each measurement.
3. Record the measurement data derived from spectrum analyzer.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 KHz. Video bandwidth (VBW) >= 300 KHz In order to make an accurate measurement, set the span to 5-30% greater than Emission Bandwidth (EBW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
6. Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (3 kHz/100 kHz = -15.2 dB).

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

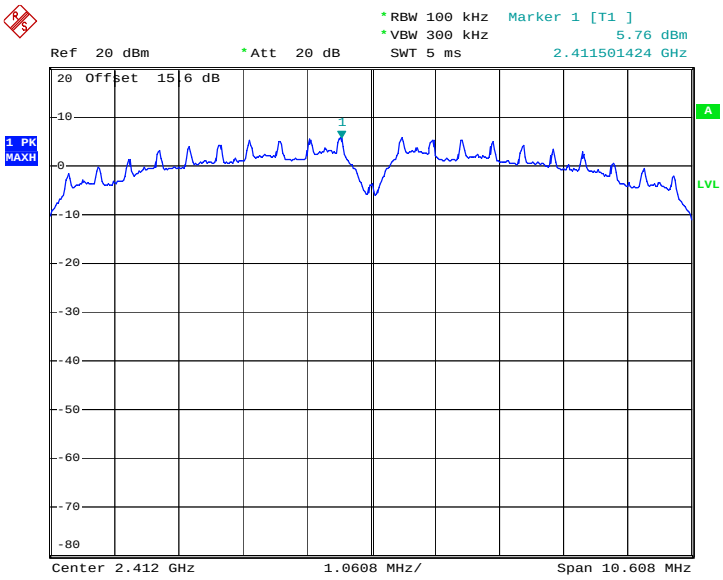
Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	5.76	-9.44	8	Pass
06	2437	5.56	-9.64	8	Pass
11	2462	5.78	-9.42	8	Pass

Note:

1. *Measured power density (dBm) has offset with cable loss.*
2. *BWCF (dB) = 10 log (3k/100k) = -15.2 dB*
3. *Power Density/ 3kHz (dBm)= Measured power density/ 100KHz (dBm) + BWCF (dB)*

PSD Plot on 802.11b Channel 01



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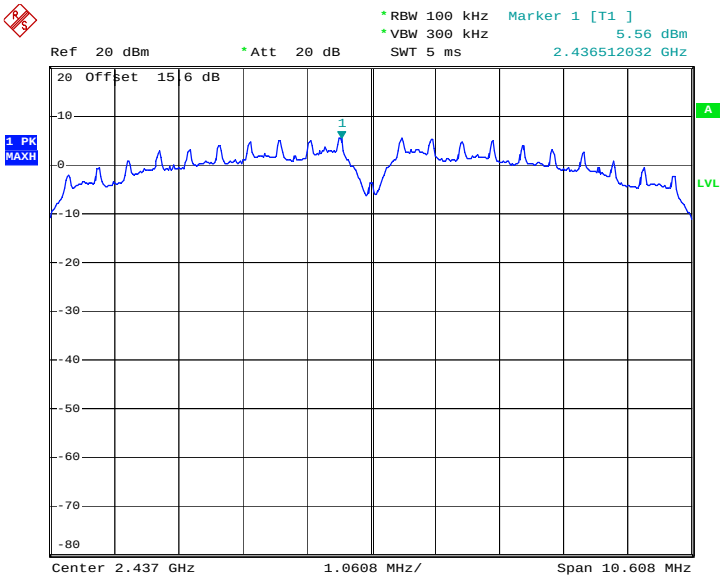
PSD Plot on 802.11b Channel 06



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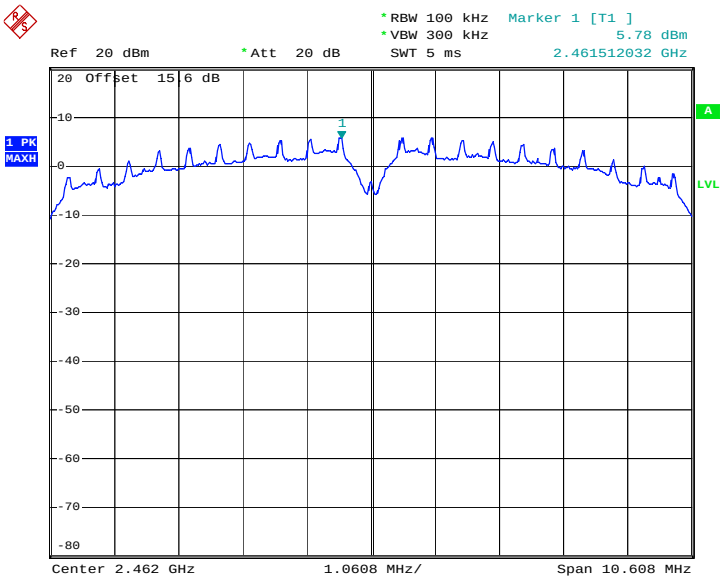
PSD Plot on 802.11b Channel 11



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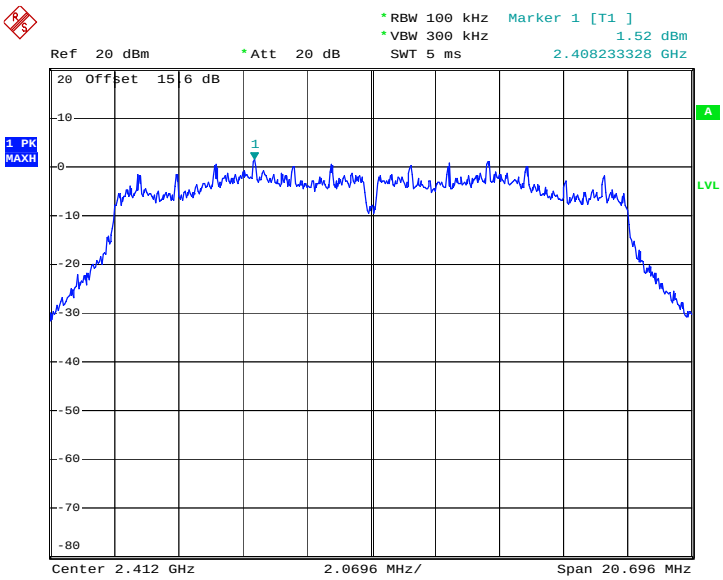
Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	1.52	-13.68	8	Pass
06	2437	0.33	-14.87	8	Pass
11	2462	1.36	-13.84	8	Pass

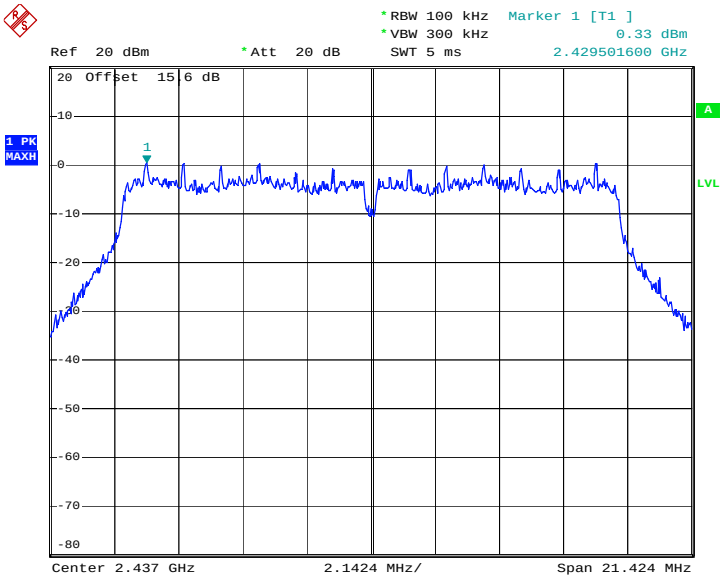
Note:

1. *Measured power density (dBm) has offset with cable loss.*
2. *BWCF (dB) = 10 log (3k/100k) = -15.2 dB*
3. *Power Density/ 3KHz (dBm)= Measured power density/ 100KHz (dBm) + BWCF (dB)*

PSD Plot on 802.11g Channel 01

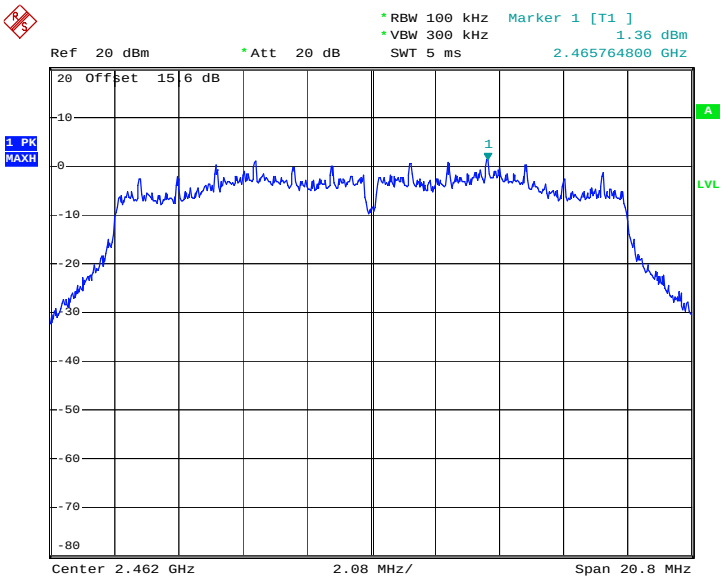


PSD Plot on 802.11g Channel 06



Date: 30.JUN.2012 01:50:10

PSD Plot on 802.11g Channel 11



Date: 30.JUN.2012 01:54:09

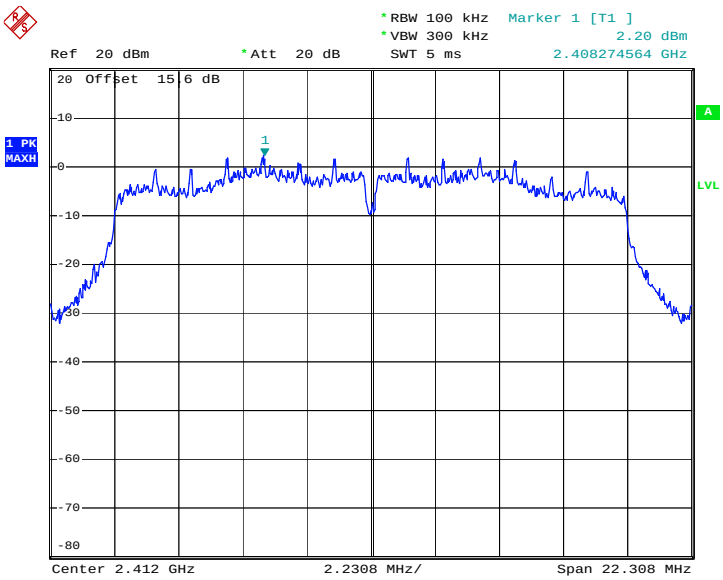
Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Engineer :	Zhi Lu	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11n HT-20 Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	2.20	-13.00	8	Pass
06	2437	1.71	-13.49	8	Pass
11	2462	1.83	-13.37	8	Pass

Note:

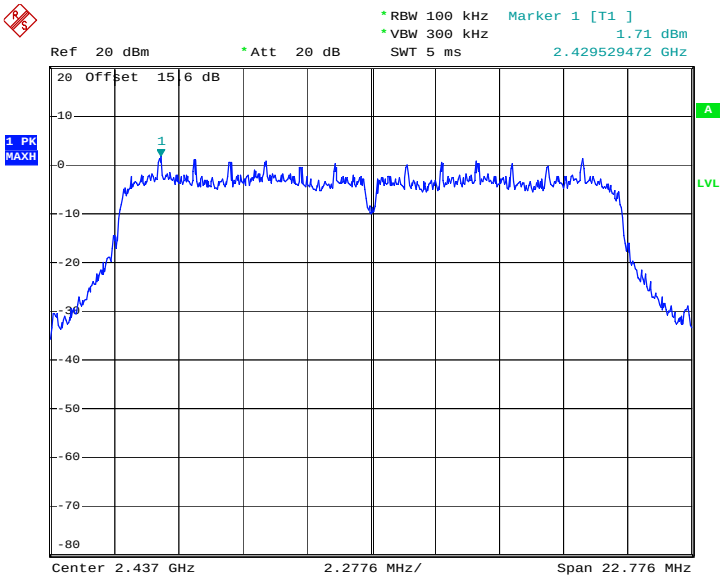
1. *Measured power density (dBm) has offset with cable loss.*
2. *BWCF (dB) = 10 log (3k/100k) = -15.2 dB*
3. *Power Density/ 3KHz (dBm)= Measured power density/ 100KHz (dBm) + BWCF (dB)*

PSD Plot on 802.11n HT-20 Channel 01



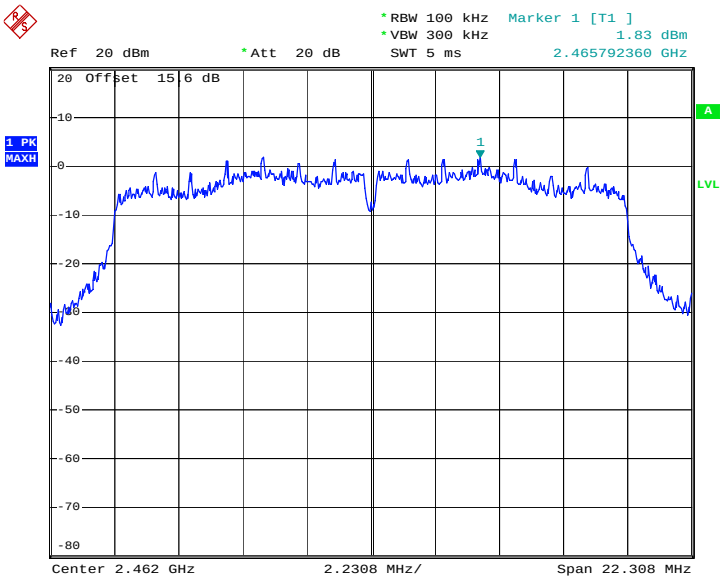
Date: 30.JUN.2012 01:59:34

PSD Plot on 802.11n HT-20 Channel 06



Date: 30.JUN.2012 02:04:39

PSD Plot on 802.11n HT-20 Channel 11



Date: 30.JUN.2012 02:07:56

3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

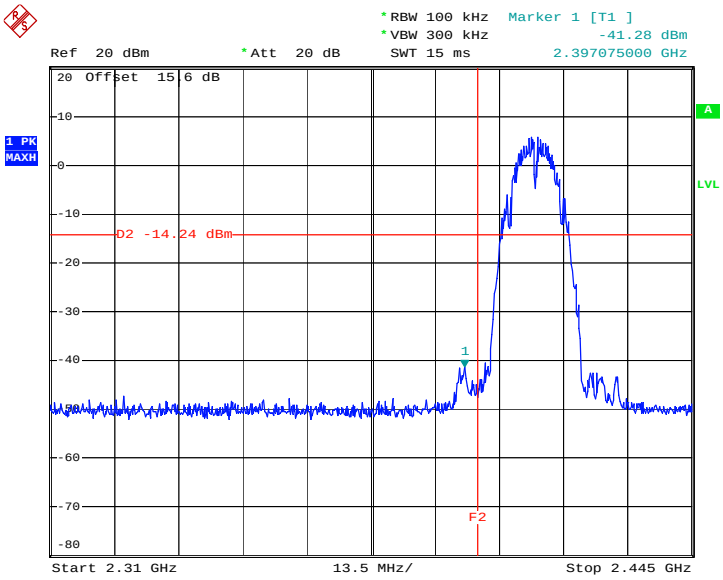
1. The testing follows the guidelines in the Measurement Procedure of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. Set RBW = 100 KHz, VBW=300 KHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz, when maximum peak conducted output power procedure is used. The attenuation is set to 30dB, when maximum conducted output power procedure is used.

3.4.4 Test Setup

3.4.5 Test Plots of Conducted Band Edges

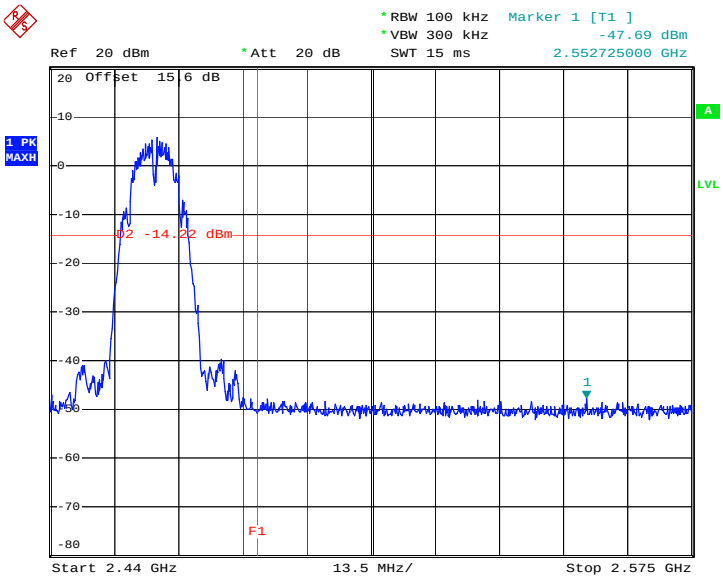
Test Mode :	802.11b	Temperature :	23~24℃
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Zhi Lu

Low Band Edge Plot on 802.11b Channel 01



Date: 30.JUN.2012 01:30:11

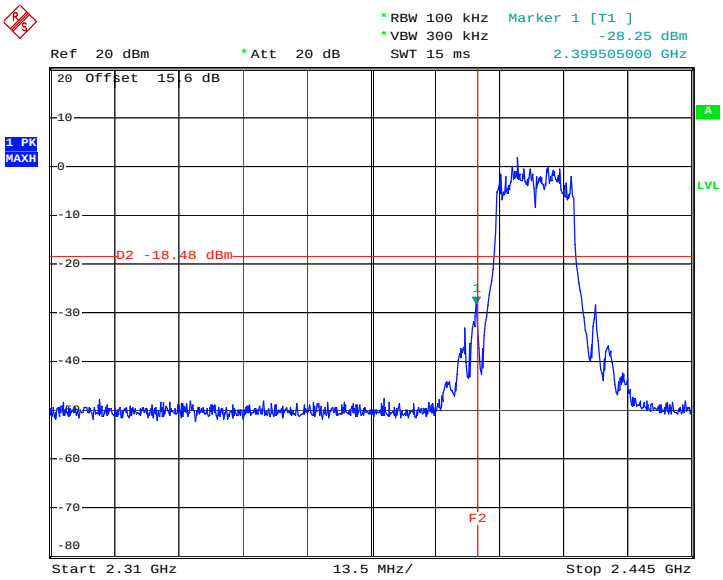
High Band Edge Plot on 802.11b Channel 11



Date: 30.JUN.2012 01:42:22

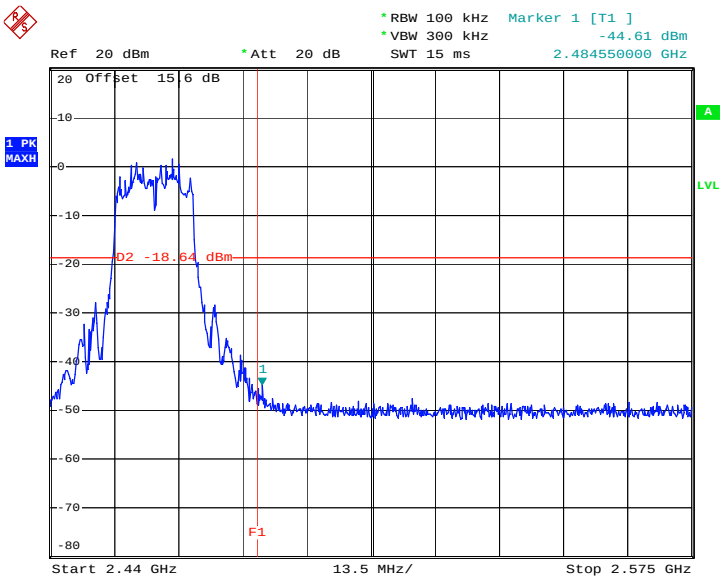
Test Mode :	802.11g	Temperature :	23~24℃
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Zhi Lu

Low Band Edge Plot on 802.11g Channel 01



Date: 30.JUN.2012 01:46:40

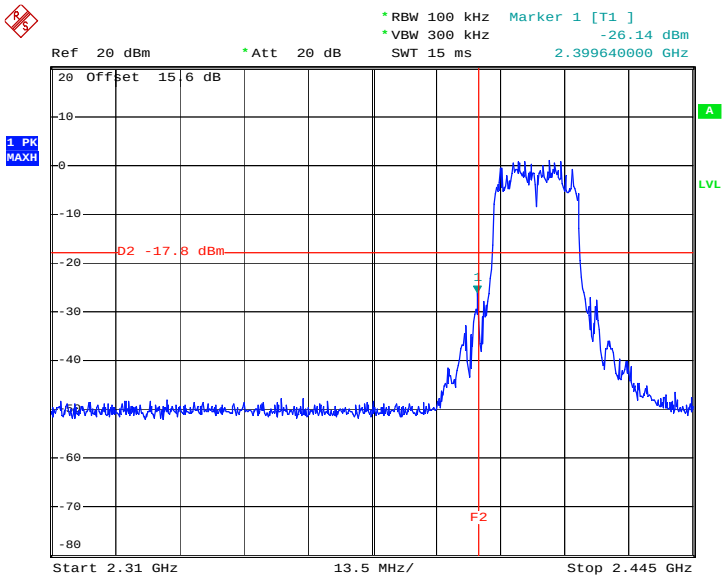
High Band Edge Plot on 802.11g Channel 11



Date: 30.JUN.2012 01:54:50

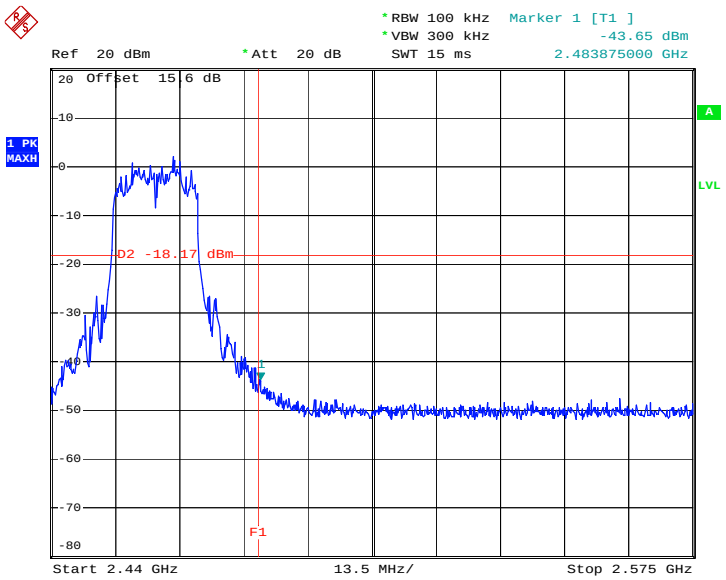
Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Zhi Lu

Low Band Edge Plot on 802.11n HT-20 Channel 01



Date: 30.JUN.2012 01:59:55

High Band Edge Plot on 802.11n HT-20 Channel 11



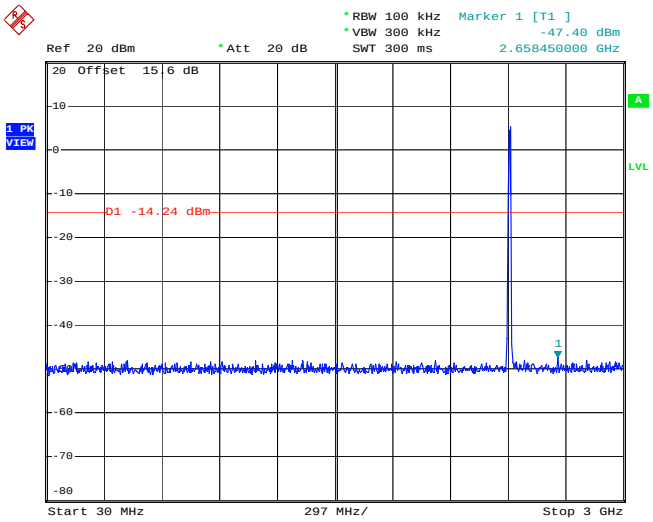
Date: 30.JUN.2012 02:09:28

3.4.6 Test Plots of Spurious Emission

Test Mode :	802.11b	Temperature :	23~24℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	47~48%
Test Channel :	01, 06, 11	Test Engineer :	Zhi Lu

802.11b 30 MHz~3 GHz

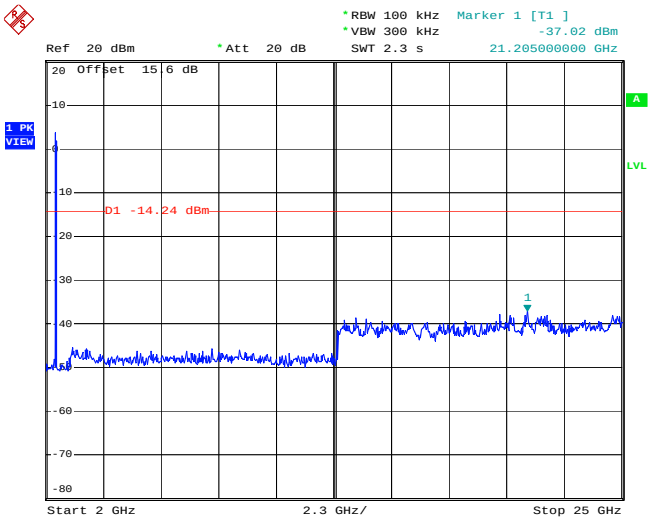
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 01:30:45

802.11b 2 GHz~25 GHz

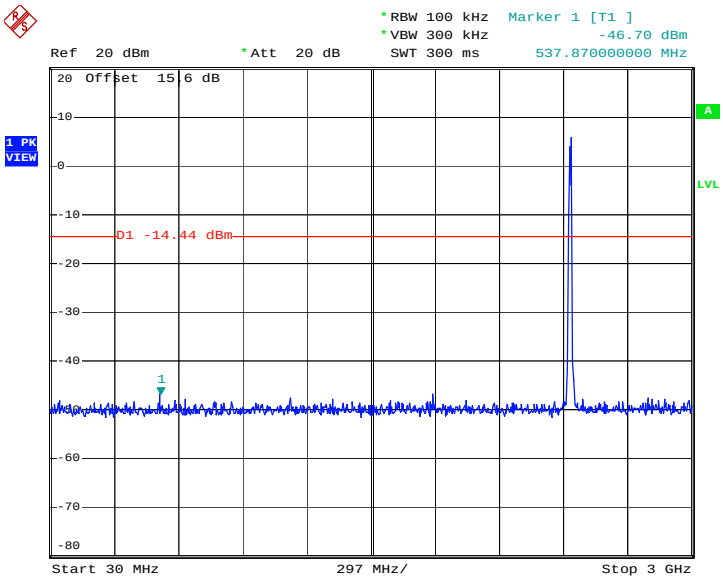
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 01:31:04

802.11b 30 MHz~3 GHz

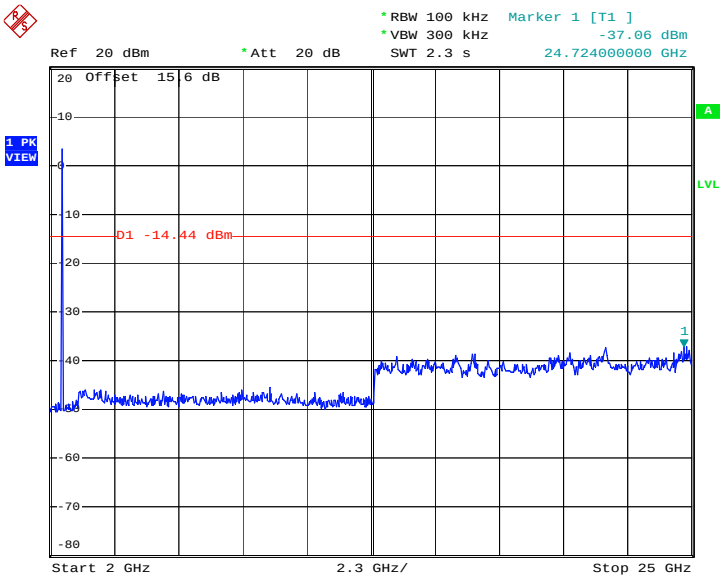
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 01:39:19

802.11b 2 GHz~25 GHz

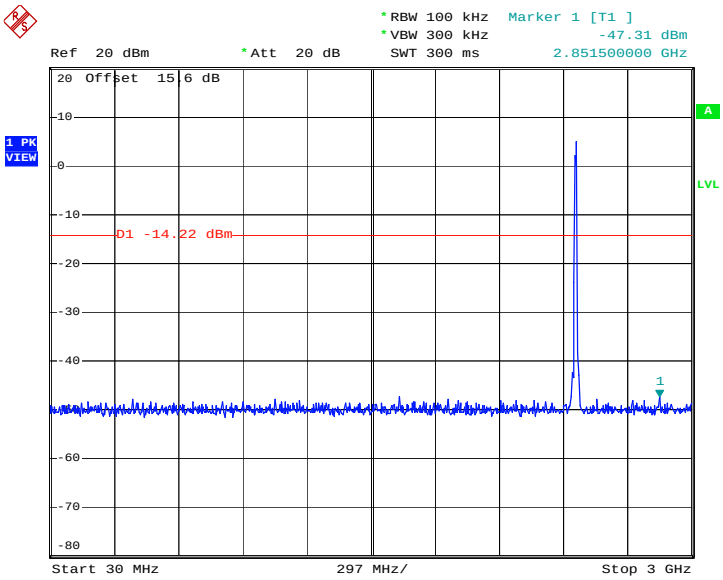
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 01:39:38

802.11b 30 MHz~3 GHz

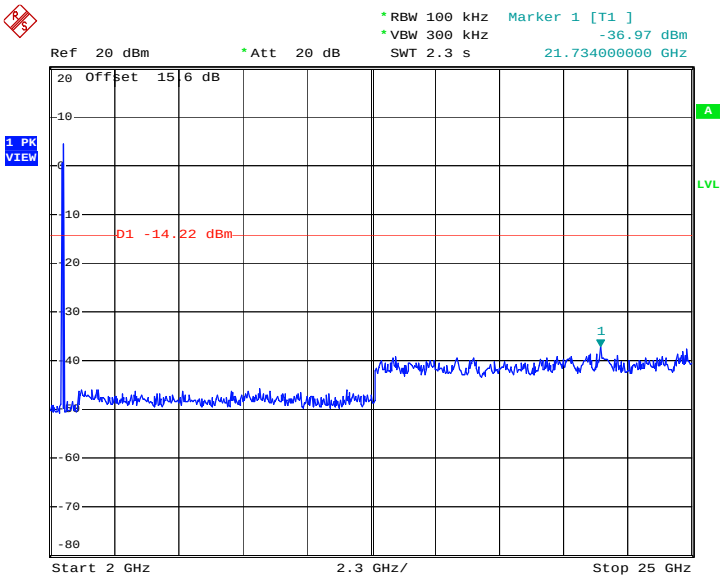
Conducted Spurious Emission Plot on Channel 11



Date: 30.JUN.2012 01:42:44

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

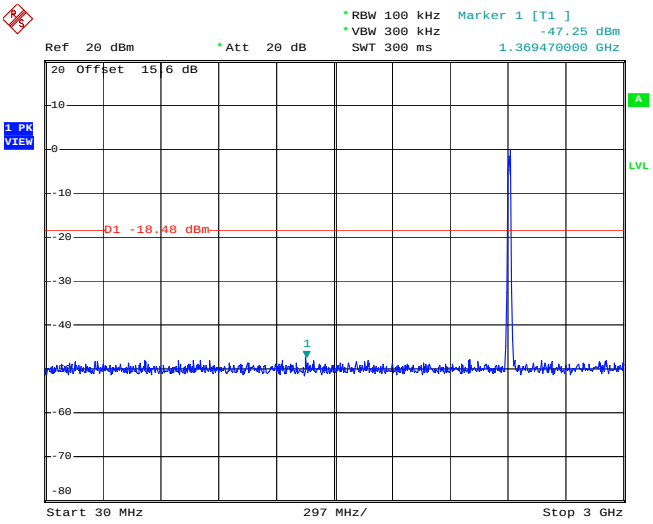


Date: 30.JUN.2012 01:43:02

Test Mode :	802.11g	Temperature :	23~24℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	47~48%
Test Channel :	01, 06, 11	Test Engineer :	Zhi Lu

802.11g 30 MHz~3 GHz

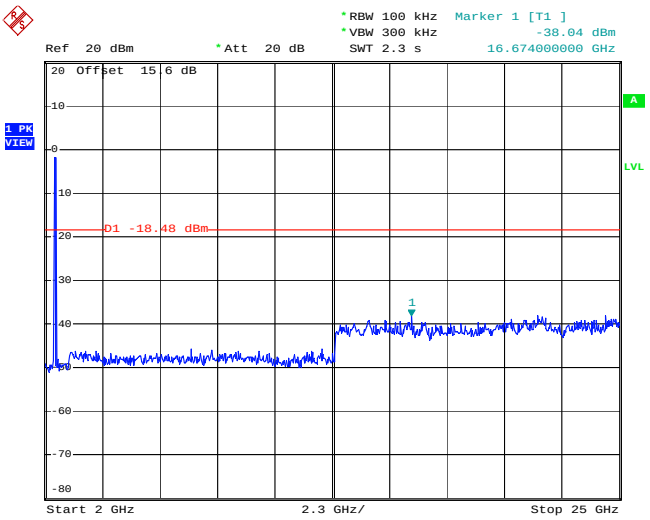
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 01:47:12

802.11g 2 GHz~25 GHz

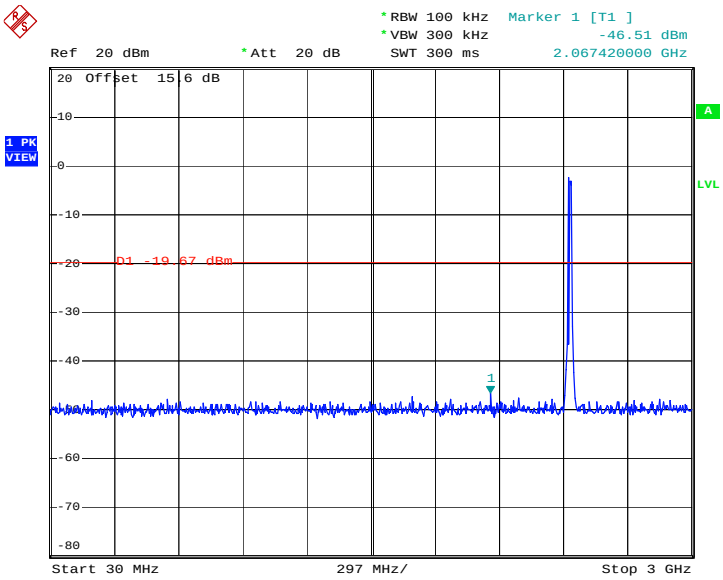
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 01:47:30

802.11g 30 MHz~3 GHz

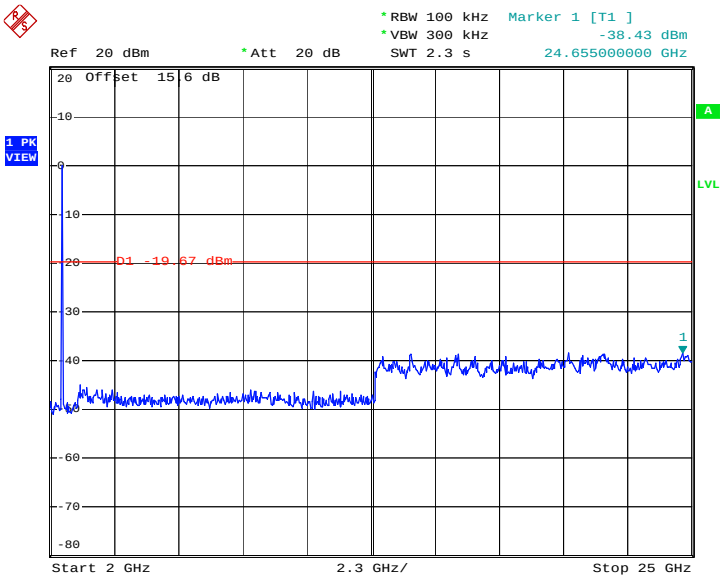
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 01:51:18

802.11g 2 GHz~25 GHz

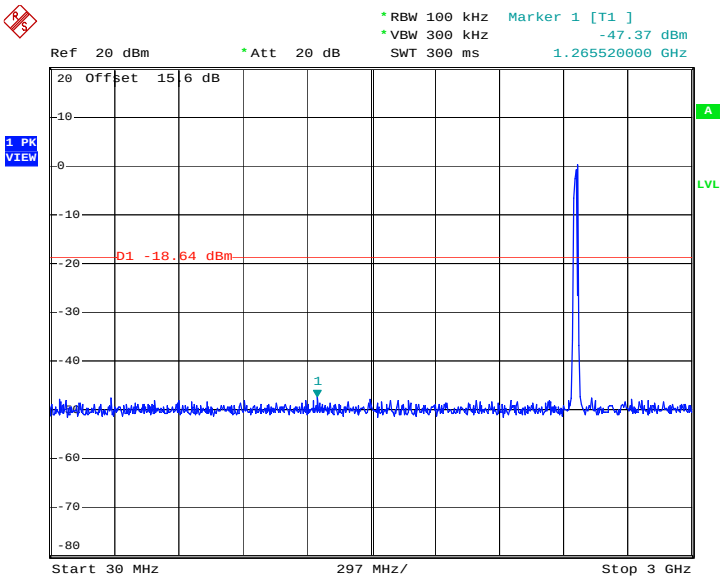
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 01:51:36

802.11g 30 MHz~3 GHz

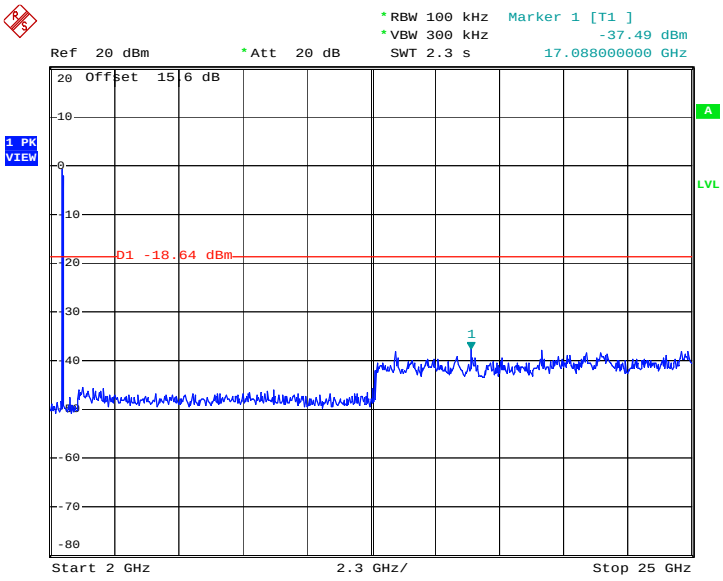
Conducted Spurious Emission Plot on Channel 11



Date: 30.JUN.2012 01:55:35

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

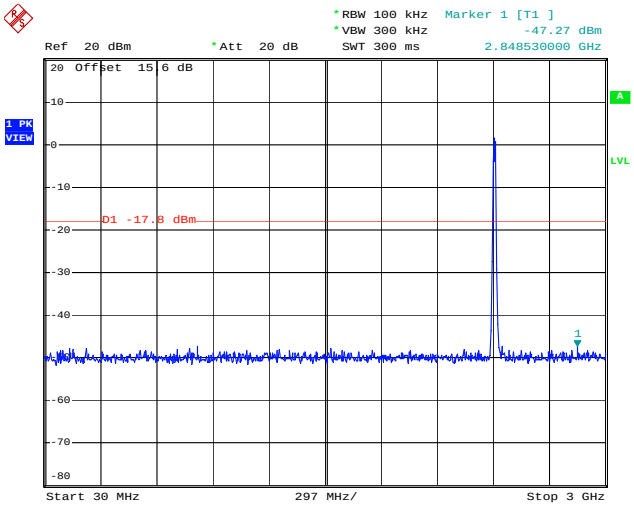


Date: 30.JUN.2012 01:55:53

Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	47~48%
Test Channel :	01, 06, 11	Test Engineer :	Zhi Lu

802.11n HT-20 30 MHz~3 GHz

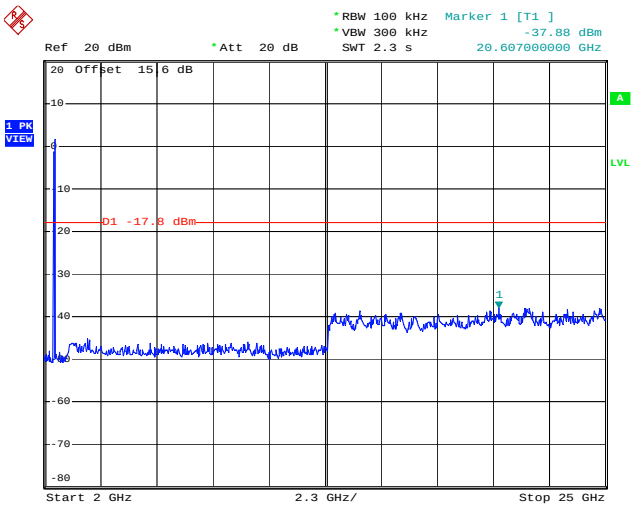
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 02:00:38

802.11n HT-20 2 GHz~25 GHz

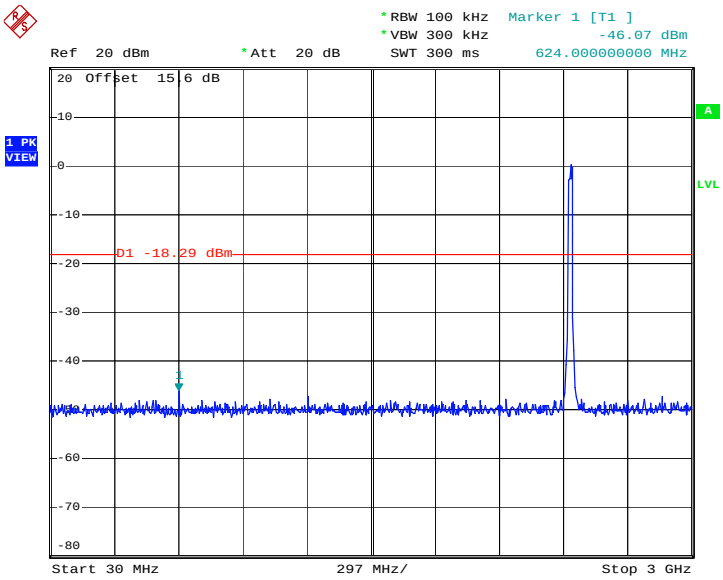
Conducted Spurious Emission Plot on Channel 01



Date: 30.JUN.2012 02:00:56

802.11n HT-20 30 MHz~3 GHz

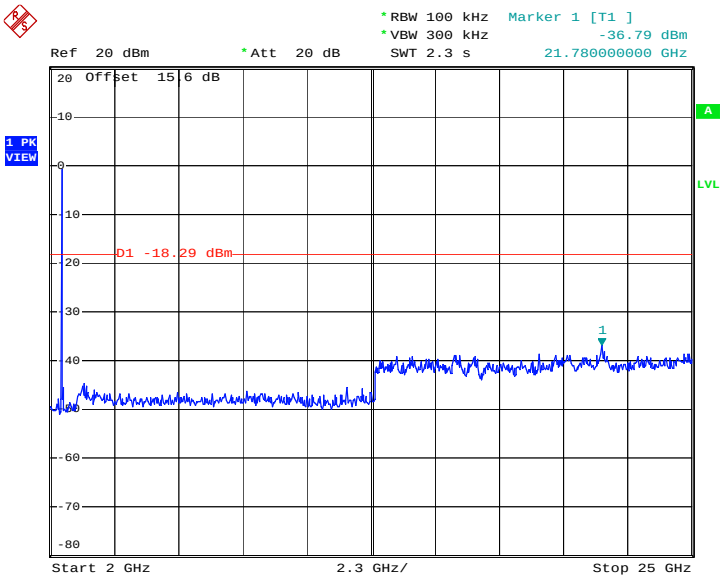
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 02:05:06

802.11n HT-20 2 GHz~25 GHz

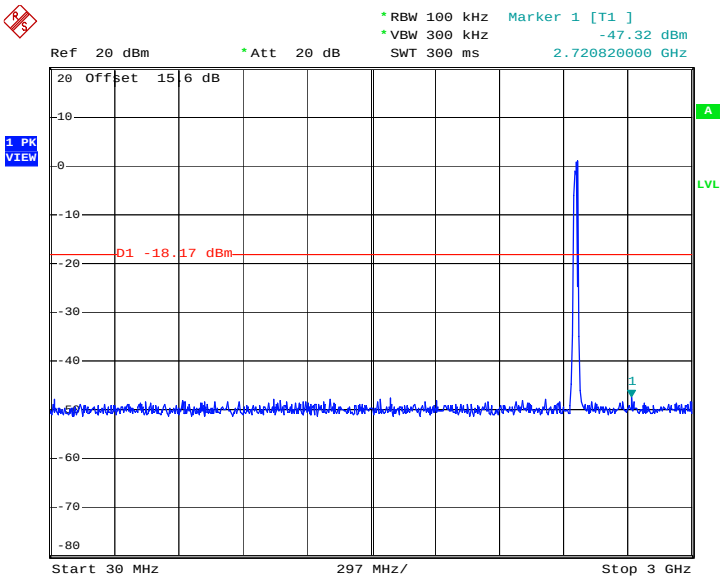
Conducted Spurious Emission Plot on Channel 06



Date: 30.JUN.2012 02:05:25

802.11n HT-20 30 MHz~3 GHz

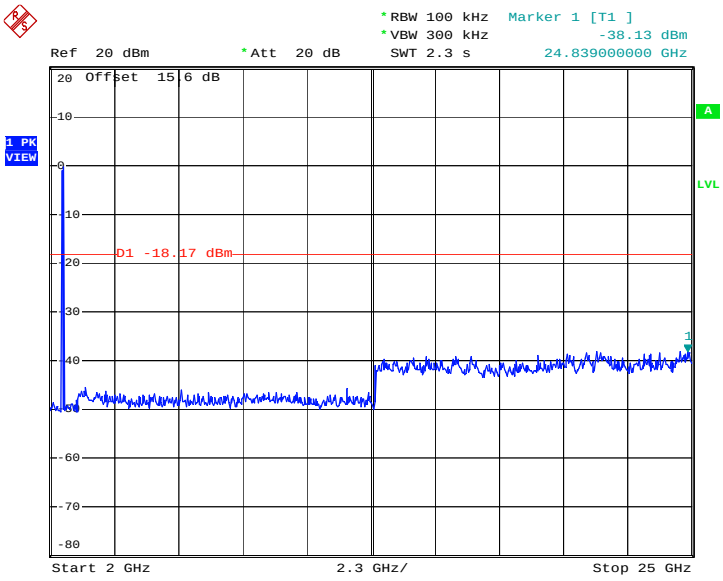
Conducted Spurious Emission Plot on Channel 11



Date: 30.JUN.2012 02:09:56

802.11n HT-20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



Date: 30.JUN.2012 02:10:15

3.5 Radiated Emission Measurement

3.5.1 Limit of Radiated Emission

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

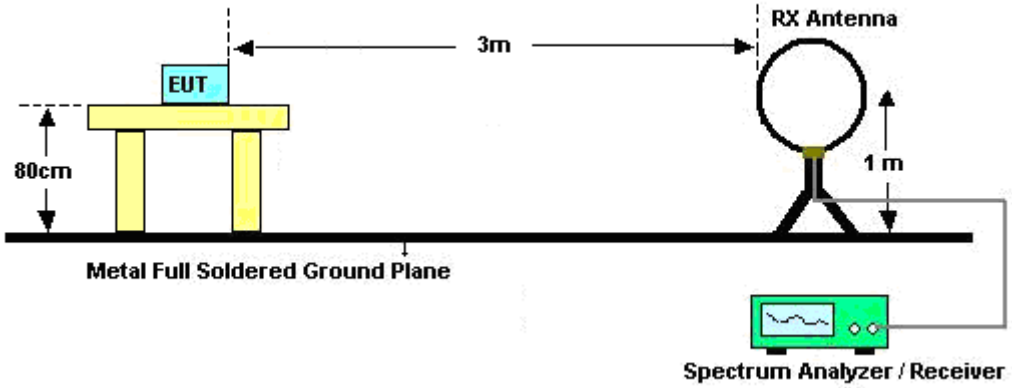
See list of measuring instruments of this test report.

3.5.3 Test Procedures

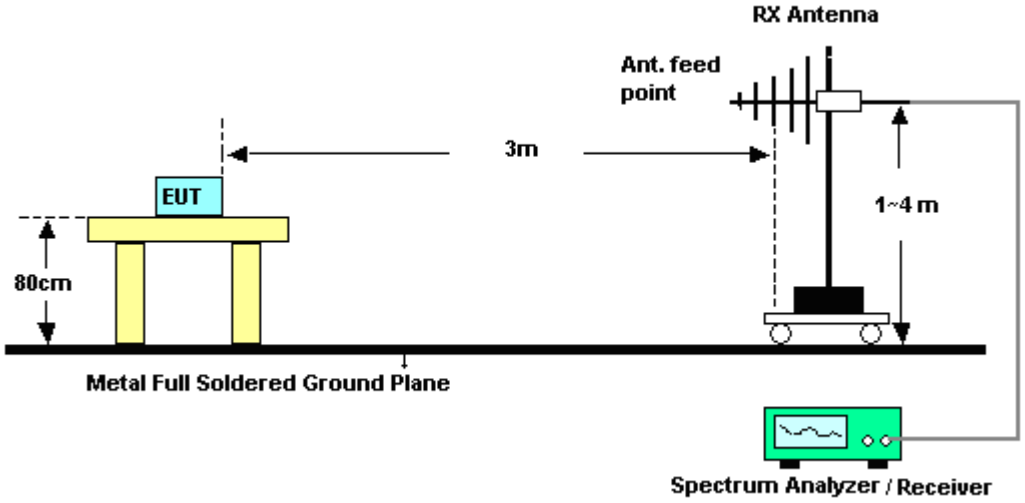
1. The testing follows TCB Workshop 2012, April and fulfills ANSI C63.4-2003 and the guidelines in ANSI C63.10-2009 test site requirement. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) 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 to comply with the guidelines.
2. The EUT was placed on a turntable with 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving Antenna, which was mounted on the top of a variable height Antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW = 1 MHz for f ≥ 1 GHz, 100 KHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
7. If the emission level of the EUT measured by the peak detector is more than 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

3.5.4 Test Setup

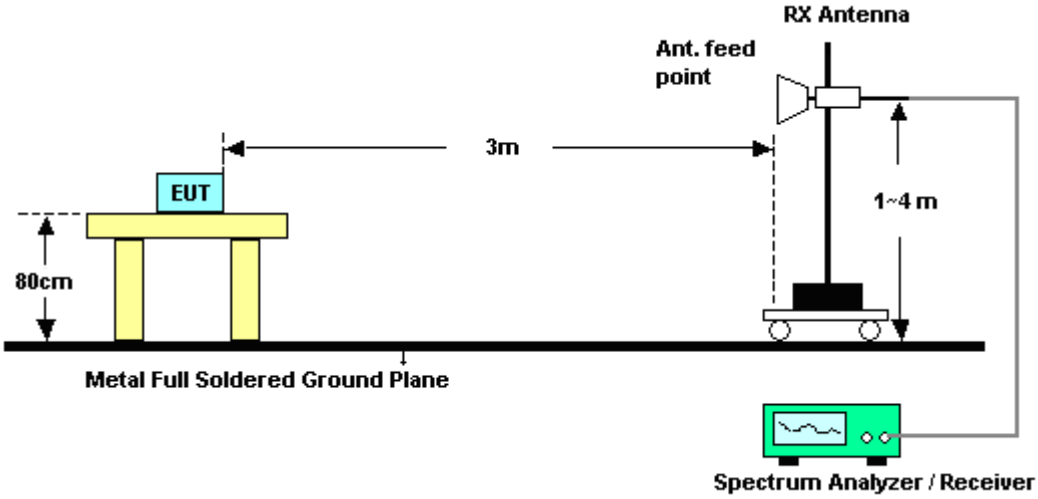
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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 Band Edges

Test Mode :	802.11b	**Temperature :**	21~22℃
Test Band :	Low	**Relative Humidity :**	47~48%
Test Channel :	01	**Test Engineer :**	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2316.27	50.27	-23.73	74	48.18	32.73	3.22	33.86	120	0	Peak
2316.27	37.21	-16.79	54	35.12	32.73	3.22	33.86	120	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2358.26	49.85	-24.15	74	47.64	32.81	3.38	33.98	145	179	Peak
2358.26	36.76	-17.24	54	34.55	32.81	3.38	33.98	145	179	Average

Test Mode :	802.11b	**Temperature :**	21~22℃
Test Band :	High	**Relative Humidity :**	47~48%
Test Channel :	11	**Test Engineer :**	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2485.38	53.89	-20.11	74	50.23	33.01	2.16	31.51	105	300	Peak
2483.5	40.84	-13.16	54	37.18	33.01	2.16	31.51	105	300	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.68	55.42	-18.58	74	51.76	33.01	2.16	31.51	123	282	Peak
2483.5	42.42	-11.58	54	38.76	33.01	2.16	31.51	123	282	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2342.3	49.76	-24.24	74	47.59	32.78	3.33	33.94	142	206	Peak
2342.3	36.32	-17.68	54	34.15	32.78	3.33	33.94	142	206	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	50.62	-23.38	74	48.34	32.86	3.47	34.05	134	279	Peak
2389.61	37.46	-16.54	54	35.18	32.86	3.47	34.05	134	279	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2485.96	57.32	-16.68	74	53.66	33.01	2.16	31.51	187	232	Peak
2483.5	41.16	-12.84	54	37.5	33.01	2.16	31.51	187	232	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.52	58.05	-15.95	74	54.39	33.01	2.16	31.51	140	60	Peak
2483.5	41.61	-12.39	54	37.95	33.01	2.16	31.51	140	62	Average

Test Mode :	802.11n HT20	Temperature :	21~22℃
Test Band :	Low	Relative Humidity :	47~48%
Test Channel :	01	Test Engineer :	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.92	54.58	-19.42	74	51.12	32.86	2.11	31.51	200	354	Peak
2390	42.21	-11.79	54	38.75	32.86	2.11	31.51	200	354	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.83	62.14	-11.86	74	58.68	32.86	2.11	31.51	100	277	Peak
2390	46.49	-7.51	54	43.03	32.86	2.11	31.51	100	277	Average

Test Mode :	802.11n HT-20	Temperature :	21~22℃
Test Band :	High	Relative Humidity :	47~48%
Test Channel :	11	Test Engineer :	Chenmy Cheng

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.23	53.41	-20.59	74	50.92	33.01	3.68	34.2	200	18	Peak
2484.23	40	-14	54	37.51	33.01	3.68	34.2	200	18	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	54.86	-19.14	74	52.37	33.01	3.68	34.2	100	276	Peak
2483.5	41.28	-12.72	54	38.79	33.01	3.68	34.2	100	276	Average

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

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.92	-17.08	40	34.74	18	0.26	30.08	-	-	Peak
309.36	21.65	-24.35	46	37.65	13.22	0.73	29.95	-	-	Peak
782.72	26.87	-19.13	46	35.36	19.86	1.23	29.58	-	-	Peak
843.83	27.26	-18.74	46	35.18	20.45	1.28	29.65	-	-	Peak
939.86	32.98	-13.02	46	40.49	20.69	1.33	29.53	100	62	Peak
951.5	31	-15	46	38.47	20.74	1.33	29.54	-	-	Peak
2316.27	50.27	-23.73	74	48.18	32.73	3.22	33.86	120	0	Peak
2316.27	37.21	-16.79	54	35.12	32.73	3.22	33.86	120	0	Average
2412	96.73	-	-	94.4	32.89	3.52	34.08	200	219	Peak
2412	92.02	-	-	89.69	32.89	3.52	34.08	200	219	Average
2484.04	49.63	-24.37	74	47.14	33.01	3.68	34.2	100	344	Peak
2484.04	37.16	-16.84	54	34.67	33.01	3.68	34.2	100	344	Average

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.97	23.48	-16.52	40	36.02	17.29	0.25	30.08	-	-	Peak
526.64	26.12	-19.88	46	36.92	17.92	0.98	29.7	-	-	Peak
562.53	26.52	-19.48	46	36.66	18.52	1.01	29.67	-	-	Peak
898.15	28.59	-17.41	46	36.32	20.45	1.3	29.48	-	-	Peak
939.86	33.19	-12.81	46	40.7	20.69	1.33	29.53	100	286	Peak
960.23	31.15	-22.85	54	38.56	20.79	1.34	29.54	-	-	Peak
2358.26	49.85	-24.15	74	47.64	32.81	3.38	33.98	145	179	Peak
2358.26	36.76	-17.24	54	34.55	32.81	3.38	33.98	145	179	Average
2412	100.46	-	-	98.13	32.89	3.52	34.08	155	273	Peak
2412	96.06	-	-	93.73	32.89	3.52	34.08	155	273	Average
2487.46	49.53	-24.47	74	47.04	33.01	3.68	34.2	200	120	Peak
2487.46	37.16	-16.84	54	34.67	33.01	3.68	34.2	200	120	Average

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	23.11	-16.89	40	34.93	18	0.26	30.08	-	-	Peak
309.36	21.17	-24.83	46	37.17	13.22	0.73	29.95	-	-	Peak
817.64	27.3	-18.7	46	35.6	20.05	1.26	29.61	-	-	Peak
862.26	27.7	-18.3	46	35.54	20.5	1.28	29.62	-	-	Peak
939.86	33.01	-12.99	46	40.52	20.69	1.33	29.53	100	85	Peak
951.5	30.24	-15.76	46	37.71	20.74	1.33	29.54	-	-	Peak
2339.07	50.02	-23.98	74	47.85	32.78	3.33	33.94	135	142	Peak
2339.07	36.32	-17.68	54	34.15	32.78	3.33	33.94	135	142	Average
2437	98.43	-	-	96.03	32.95	3.6	34.15	199	61	Peak
2437	92.39	-	-	89.99	32.95	3.6	34.15	199	61	Average
2499.62	49	-25	74	46.46	33.05	3.72	34.23	155	204	Peak
2499.62	35.69	-18.31	54	33.15	33.05	3.72	34.23	155	204	Average

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.91	-17.09	40	34.73	18	0.26	30.08	-	-	Peak
545.07	25.26	-20.74	46	35.53	18.41	1	29.68	-	-	Peak
584.84	26.39	-19.61	46	36.41	18.57	1.05	29.64	-	-	Peak
898.15	28.41	-17.59	46	36.14	20.45	1.3	29.48	-	-	Peak
939.86	32.49	-13.51	46	40	20.69	1.33	29.53	100	281	Peak
960.23	30.55	-23.45	54	37.96	20.79	1.34	29.54	-	-	Peak
2341.54	50	-24	74	47.83	32.78	3.33	33.94	133	117	Peak
2341.54	36.68	-17.32	54	34.51	32.78	3.33	33.94	133	117	Average
2437	100.43	-	-	98.03	32.95	3.6	34.15	120	271	Peak
2437	96.88	-	-	94.48	32.95	3.6	34.15	120	271	Average
2490.5	49.86	-24.14	74	47.32	33.05	3.72	34.23	100	354	Peak
2490.5	36.75	-17.25	54	34.21	33.05	3.72	34.23	100	354	Average

Test Mode :	802.11b	Temperature :	23~24℃
Test Channel :	11	Relative Humidity :	43~44%
Test Engineer :	Stone Gu	Polarization :	Horizontal
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
32.52	19.46	-20.54	40	36.66	16.04	0.35	33.59	-	-	Peak
71.581	12.26	-27.74	40	39.86	5.46	0.53	33.59	-	-	Peak
103.442	25.96	-17.54	43.5	47.97	11.01	0.59	33.61	-	-	Peak
129.015	21.46	-22.04	43.5	42.67	11.71	0.67	33.59	-	-	Peak
304.61	29.44	-16.56	46	48.71	13.1	1	33.37	-	-	Peak
948.761	29.5	-16.5	46	39.46	20.73	1.75	32.44	200	0	Peak
2462	106.13	-	-	102.51	32.98	2.15	31.51	105	311	Peak
2462	101.26	-	-	97.64	32.98	2.15	31.51	105	311	Average

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.888	25.54	-14.46	40	45.81	12.98	0.39	33.64	-	-	Peak
53.882	19.84	-20.16	40	46.47	6.49	0.46	33.58	-	-	Peak
66.499	15.87	-24.13	40	43.7	5.25	0.51	33.59	-	-	Peak
92.462	15.15	-28.35	43.5	38.86	9.35	0.56	33.62	-	-	Peak
305.68	31.74	-14.26	46	50.98	13.13	1	33.37	150	230	Peak
948.761	28.96	-17.04	46	38.92	20.73	1.75	32.44	-	-	Peak
2462	108.73	-	-	105.11	32.98	2.15	31.51	123	281	Peak
2462	103.47	-	-	99.85	32.98	2.15	31.51	123	281	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.42	-17.58	40	34.24	18	0.26	30.08	-	-	Peak
173.56	17.57	-25.93	43.5	37.97	8.95	0.55	29.9	-	-	Peak
578.05	25.43	-20.57	46	35.47	18.56	1.04	29.64	-	-	Peak
768.17	25.85	-20.15	46	34.33	19.88	1.2	29.56	-	-	Peak
939.86	32.09	-13.91	46	39.6	20.69	1.33	29.53	100	0	Peak
960.23	30.85	-23.15	54	38.26	20.79	1.34	29.54	-	-	Peak
2342.3	49.76	-24.24	74	47.59	32.78	3.33	33.94	142	206	Peak
2342.3	36.32	-17.68	54	34.15	32.78	3.33	33.94	142	206	Average
2412	98.3	-	-	95.97	32.89	3.52	34.08	200	211	Peak
2412	82.22	-	-	79.89	32.89	3.52	34.08	200	211	Average
2486.32	50.08	-23.92	74	47.59	33.01	3.68	34.2	100	37	Peak
2486.32	37.16	-16.84	54	34.67	33.01	3.68	34.2	100	37	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.97	22.33	-17.67	40	34.87	17.29	0.25	30.08	-	-	Peak
531.49	24.97	-21.03	46	35.6	18.08	0.99	29.7	-	-	Peak
577.08	25.85	-20.15	46	35.9	18.56	1.04	29.65	-	-	Peak
638.19	26.08	-19.92	46	35.79	18.84	1.09	29.64	-	-	Peak
939.86	33.62	-12.38	46	41.13	20.69	1.33	29.53	100	315	Peak
960.23	30.82	-23.18	54	38.23	20.79	1.34	29.54	-	-	Peak
2389.61	50.62	-23.38	74	48.34	32.86	3.47	34.05	134	279	Peak
2389.61	37.46	-16.54	54	35.18	32.86	3.47	34.05	134	279	Average
2412	100.48	-	-	98.15	32.89	3.52	34.08	102	282	Peak
2412	84.11	-	-	81.78	32.89	3.52	34.08	102	282	Average
2493.73	49.48	-24.52	74	46.94	33.05	3.72	34.23	200	0	Peak
2493.73	36.15	-17.85	54	33.61	33.05	3.72	34.23	200	0	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.79	-17.21	40	34.61	18	0.26	30.08	-	-	Peak
105.66	16.72	-26.78	43.5	34.97	11.29	0.42	29.96	-	-	Peak
532.46	24.22	-21.78	46	34.81	18.11	0.99	29.69	-	-	Peak
584.84	24.79	-21.21	46	34.81	18.57	1.05	29.64	-	-	Peak
939.86	34.03	-11.97	46	41.54	20.69	1.33	29.53	100	263	Peak
960.23	31.94	-22.06	54	39.35	20.79	1.34	29.54	-	-	Peak
2331.09	50.07	-23.93	74	47.94	32.76	3.27	33.9	122	120	Peak
2331.09	36.79	-17.21	54	34.66	32.76	3.27	33.9	122	120	Average
2437	97.08	-	-	94.68	32.95	3.6	34.15	169	360	Peak
2437	81.41	-	-	79.01	32.95	3.6	34.15	169	360	Average
2485.18	49.77	-24.23	74	47.28	33.01	3.68	34.2	200	51	Peak
2485.18	37	-17	54	34.51	33.01	3.68	34.2	200	51	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.03	-17.97	40	33.85	18	0.26	30.08	-	-	Peak
512.09	24.19	-21.81	46	35.49	17.45	0.97	29.72	-	-	Peak
580.96	26.06	-19.94	46	36.08	18.57	1.05	29.64	-	-	Peak
898.15	28.9	-17.1	46	36.63	20.45	1.3	29.48	-	-	Peak
939.86	33.2	-12.8	46	40.71	20.69	1.33	29.53	121	0	Peak
960.23	31.33	-22.67	54	38.74	20.79	1.34	29.54	-	-	Peak
2310.95	49.41	-24.59	74	47.32	32.73	3.22	33.86	132	101	Peak
2310.95	36.18	-17.82	54	34.09	32.73	3.22	33.86	132	101	Average
2437	99.01	-	-	96.61	32.95	3.6	34.15	101	281	Peak
2437	83.45	-	-	81.05	32.95	3.6	34.15	101	281	Average
2494.68	49.34	-24.66	74	46.8	33.05	3.72	34.23	169	353	Peak
2494.68	35.78	-18.22	54	33.24	33.05	3.72	34.23	169	353	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
32.406	18.77	-21.23	40	35.45	16.55	0.35	33.58	-	-	Peak
129.015	20.86	-22.64	43.5	42.07	11.71	0.67	33.59	-	-	Peak
291.036	29.09	-16.91	46	48.62	12.87	0.98	33.38	-	-	Peak
303.544	30.8	-15.2	46	50.09	13.08	1	33.37	-	-	Peak
318.817	29.1	-16.9	46	47.93	13.51	1.03	33.37	-	-	Peak
948.761	31.17	-14.83	46	41.13	20.73	1.75	32.44	200	100	Peak
2462	103.46	-	-	99.84	32.98	2.15	31.51	187	232	Peak
2462	92.35	-	-	88.73	32.98	2.15	31.51	187	232	Average

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.888	26.24	-13.76	40	46.51	12.98	0.39	33.64	130	214	Peak
52.76	21.05	-18.95	40	47.17	7.01	0.45	33.58	-	-	Peak
100.934	21.57	-21.93	43.5	43.98	10.62	0.58	33.61	-	-	Peak
129.015	24.86	-18.64	43.5	46.07	11.71	0.67	33.59	-	-	Peak
304.61	31.39	-14.61	46	50.66	13.1	1	33.37	-	-	Peak
948.761	31.15	-14.85	46	41.11	20.73	1.75	32.44	-	-	Peak
2462	104.61	-	-	100.99	32.98	2.15	31.51	139	60	Peak
2462	92.75	-	-	89.13	32.98	2.15	31.51	139	60	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
33.328	18.84	-21.16	40	36.04	16.04	0.35	33.59	-	-	Peak
89.276	31.88	-11.62	43.5	56.34	8.61	0.55	33.62	-	-	Peak
129.015	15.99	-27.51	43.5	37.2	11.71	0.67	33.59	-	-	Peak
303.544	31.09	-14.91	46	50.38	13.08	1	33.37	-	-	Peak
900.147	36.43	-9.57	46	46.63	20.45	1.77	32.42	100	288	Peak
948.761	30.27	-15.73	46	40.23	20.73	1.75	32.44	-	-	Peak
2412	104.95	-	-	101.45	32.89	2.12	31.51	200	344	Peak
2412	94.45	-	-	90.95	32.89	2.12	31.51	200	344	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2412 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
38.481	24.34	-15.66	40	44.61	12.98	0.39	33.64	-	-	Peak
60.492	22.25	-17.75	40	50.05	5.3	0.48	33.58	-	-	Peak
94.428	27.25	-16.25	43.5	50.65	9.66	0.56	33.62	-	-	Peak
129.015	21.61	-21.89	43.5	42.82	11.71	0.67	33.59	-	-	Peak
305.68	24.17	-21.83	46	43.41	13.13	1	33.37	-	-	Peak
952.094	30.77	-15.23	46	40.72	20.74	1.75	32.44	145	200	Peak
2412	108.7	-	-	105.2	32.89	2.12	31.51	100	263	Peak
2412	98.22	-	-	94.72	32.89	2.12	31.51	100	263	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	23.2	-16.8	40	35.02	18	0.26	30.08	-	-	Peak
173.56	19.54	-23.96	43.5	39.94	8.95	0.55	29.9	-	-	Peak
528.58	27.11	-18.89	46	37.84	17.99	0.98	29.7	-	-	Peak
573.2	26.62	-19.38	46	36.7	18.54	1.03	29.65	-	-	Peak
939.86	32.66	-13.34	46	40.17	20.69	1.33	29.53	100	211	Peak
960.23	31.27	-22.73	54	38.68	20.79	1.34	29.54	-	-	Peak
2382.01	49.74	-24.26	74	47.5	32.83	3.42	34.01	100	96	Peak
2382.01	37.43	-16.57	54	35.19	32.83	3.42	34.01	100	96	Average
2437	99.73	-	-	97.33	32.95	3.6	34.15	137	0	Peak
2437	84.03	-	-	81.63	32.95	3.6	34.15	137	0	Average
2484.42	49.84	-24.16	74	47.35	33.01	3.68	34.2	100	205	Peak
2484.42	37.69	-16.31	54	35.2	33.01	3.68	34.2	100	205	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.97	22.82	-17.18	40	35.36	17.29	0.25	30.08	-	-	Peak
567.38	29.3	-16.7	46	39.41	18.53	1.02	29.66	-	-	Peak
626.55	28.3	-17.7	46	38.1	18.76	1.08	29.64	-	-	Peak
825.4	28.76	-17.24	46	36.94	20.18	1.26	29.62	-	-	Peak
939.86	33.34	-12.66	46	40.85	20.69	1.33	29.53	100	0	Peak
960.23	33.28	-20.72	54	40.69	20.79	1.34	29.54	-	-	Peak
2381.82	49.57	-24.43	74	47.33	32.83	3.42	34.01	100	156	Peak
2381.82	36.87	-17.13	54	34.63	32.83	3.42	34.01	100	156	Average
2437	99.52	-	-	97.12	32.95	3.6	34.15	100	252	Peak
2437	84.55	-	-	82.15	32.95	3.6	34.15	100	252	Average
2486.89	49.85	-24.15	74	47.36	33.01	3.68	34.2	100	21	Peak
2486.89	37.09	-16.91	54	34.6	33.01	3.68	34.2	100	21	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Horizontal
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.86	-17.14	40	34.68	18	0.26	30.08	-	-	Peak
174.53	18.17	-25.33	43.5	38.64	8.87	0.55	29.89	-	-	Peak
323.91	21.98	-24.02	46	37.45	13.71	0.77	29.95	-	-	Peak
842.86	29.26	-16.74	46	37.19	20.44	1.28	29.65	-	-	Peak
870.02	28.87	-17.13	46	36.68	20.49	1.29	29.59	-	-	Peak
939.86	30.53	-15.47	46	38.04	20.69	1.33	29.53	100	20	Peak
2345.53	49.68	-24.32	74	47.51	32.78	3.33	33.94	200	0	Peak
2345.53	37.43	-16.57	54	35.26	32.78	3.33	33.94	200	0	Average
2462	97.72	-	-	95.27	32.98	3.64	34.17	200	328	Peak
2462	81.37	-	-	78.92	32.98	3.64	34.17	200	328	Average
2484.23	53.41	-20.59	74	50.92	33.01	3.68	34.2	200	18	Peak
2484.23	40	-14	54	37.51	33.01	3.68	34.2	200	18	Average

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	47~48%
Test Engineer :	Chenmy Cheng	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	22.65	-17.35	40	34.47	18	0.26	30.08	-	-	Peak
473.29	25.01	-20.99	46	37.14	16.7	0.93	29.76	-	-	Peak
526.64	27.99	-18.01	46	38.79	17.92	0.98	29.7	-	-	Peak
566.41	28.27	-17.73	46	38.38	18.53	1.02	29.66	-	-	Peak
865.17	27.74	-18.26	46	35.57	20.49	1.29	29.61	-	-	Peak
939.86	32.06	-13.94	46	39.57	20.69	1.33	29.53	100	26	Peak
2363.2	49.36	-24.64	74	47.15	32.81	3.38	33.98	100	166	Peak
2363.2	36.74	-17.26	54	34.53	32.81	3.38	33.98	100	166	Average
2462	101.09	-	-	98.64	32.98	3.64	34.17	100	281	Peak
2462	84.55	-	-	82.1	32.98	3.64	34.17	100	281	Average
2483.5	54.86	-19.14	74	52.37	33.01	3.68	34.2	100	276	Peak
2483.5	41.28	-12.72	54	38.79	33.01	3.68	34.2	100	276	Average

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 (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

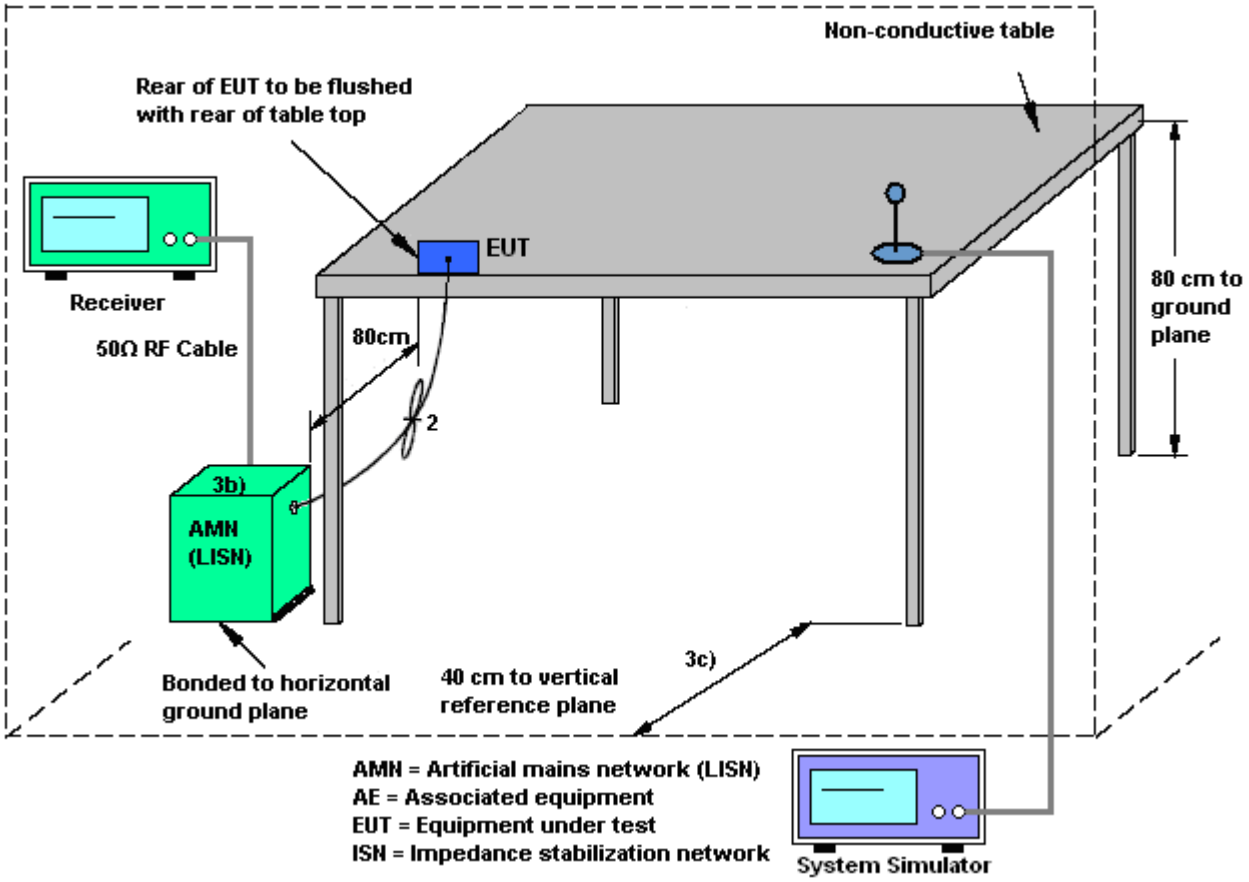
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

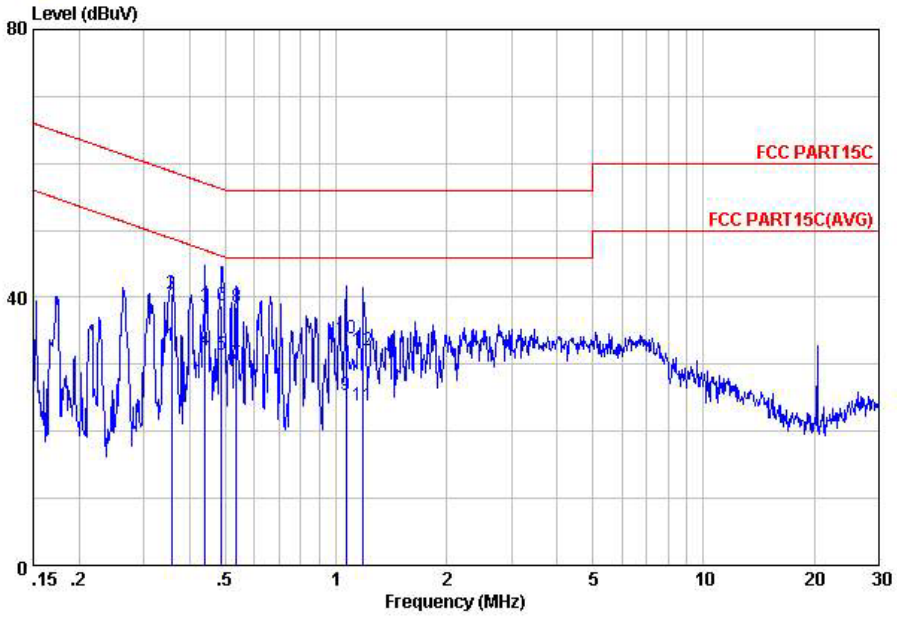
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 KHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

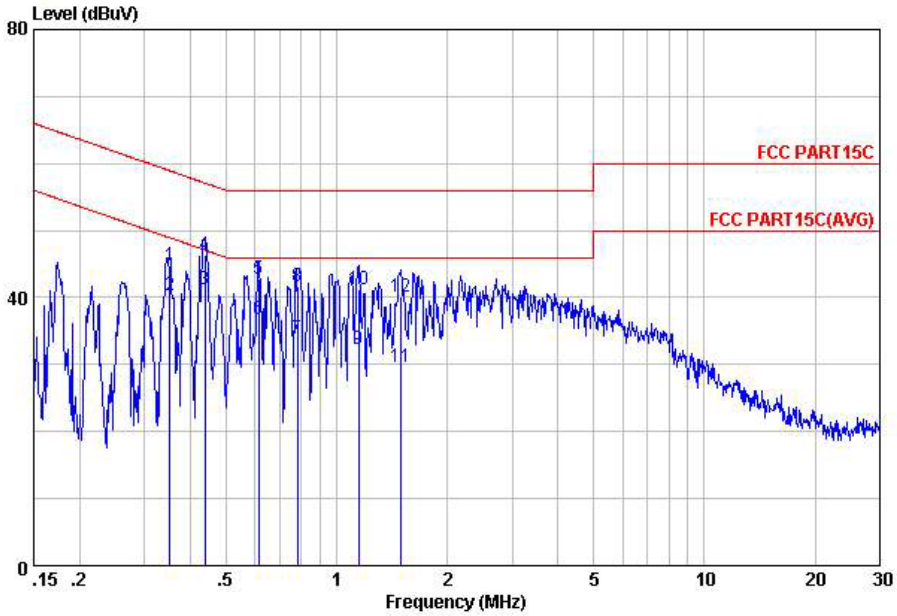
Test Mode :	Mode 1	Temperature :	19~20℃
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	CDMA2000 BC0 Idle + WLAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition: FCC PART15C LISN-111230 LINE
Project : (FR) 261903
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.36	32.73	-16.05	48.78	22.20	-0.08	10.61	Average
2	0.36	40.63	-18.15	58.78	30.10	-0.08	10.61	QP
3	0.44	38.44	-18.63	57.07	27.90	-0.08	10.62	QP
4	0.44	32.04	-15.03	47.07	21.50	-0.08	10.62	Average
5	0.49	31.34	-14.85	46.19	20.80	-0.08	10.62	Average
6	0.49	38.74	-17.45	56.19	28.20	-0.08	10.62	QP
7	0.53	30.17	-15.83	46.00	19.62	-0.08	10.63	Average
8	0.53	38.44	-17.56	56.00	27.89	-0.08	10.63	QP
9	1.07	25.35	-20.65	46.00	14.80	-0.10	10.65	Average
10	1.07	33.95	-22.05	56.00	23.40	-0.10	10.65	QP
11	1.18	23.86	-22.14	46.00	13.30	-0.10	10.66	Average
12	1.18	32.06	-23.94	56.00	21.50	-0.10	10.66	QP

Test Mode :	Mode 1	Temperature :	19~20℃
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	CDMA2000 BC0 Idle + WLAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : C001-KS
Condition: FCC PART15C LISN-111230 NEUTRAL
Project : (FR) 261903
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.35	44.83	-14.08	58.91	34.30	-0.08	10.61	QP
2	0.35	40.23	-8.68	48.91	29.70	-0.08	10.61	Average
3	0.44	41.24	-5.87	47.11	30.70	-0.08	10.62	Average
4	0.44	46.34	-10.77	57.11	35.80	-0.08	10.62	QP
5	0.61	42.85	-13.15	56.00	32.30	-0.08	10.63	QP
6	0.61	36.75	-9.25	46.00	26.20	-0.08	10.63	Average
7	0.78	33.96	-12.04	46.00	23.40	-0.08	10.64	Average
8	0.78	41.56	-14.44	56.00	31.00	-0.08	10.64	QP
9	1.15	32.26	-13.74	46.00	21.69	-0.09	10.66	Average
10	1.15	41.26	-14.74	56.00	30.69	-0.09	10.66	QP
11	1.50	29.58	-16.42	46.00	19.00	-0.10	10.68	Average
12	1.50	40.18	-15.82	56.00	29.60	-0.10	10.68	QP

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 Connected Construction

Non-standard connector used.

3.7.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Jun. 28, 2012~ Nov. 21, 2012	Dec. 29, 2012	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 23, 2011	Jun. 28, 2012~ Jun. 30, 2012	Aug. 22, 2012	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 22, 2012	Nov. 21, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 23, 2011	Jun. 28, 2012~ Jun. 30, 2012	Aug. 22, 2012	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 22, 2012	Nov. 21, 2012	Aug. 21, 2013	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 23, 2011	Jun. 28, 2012~ Jun. 30, 2012	Aug. 22, 2012	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 22, 2012	Nov. 21, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 30, 2011	Jun. 28, 2012~ Nov. 21, 2012	Dec. 29, 2012	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 09, 2011	Jul. 10, 2012	Nov. 08, 2012	Radiation (03CH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Nov. 20, 2012	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Jul. 10, 2012~ Nov. 20, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Jul. 10, 2012~ Nov. 20, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/ 001	9 kHz~30 MHz	Jul. 03, 2012	Jul. 10, 2012~ Nov. 20, 2012	Jul. 02, 2014	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2012	Jul. 10, 2012~ Nov. 20, 2012	Jan. 05, 2013	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Dec. 30, 2011	Jul. 10, 2012~ Nov. 20, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Jul. 10, 2012~ Nov. 20, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 07, 2011	Jul. 10, 2012	Nov. 06, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 06, 2012	Nov. 20, 2012	Nov. 05, 2013	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Oct. 11, 2011	Jul. 10, 2012	Oct. 10, 2012	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Oct. 10, 2012	Nov. 20, 2012	Oct. 09, 2013	Radiation (03CH01-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	Jun. 01, 2012	Jun. 28, 2012	May 31, 2013	Conduction (CO01-KS)
LISN	MessTec	AN3016	60103	9kHz~30MHz	Dec. 30, 2011	Jun. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)

LISN	MessTec	AN3016	60105	9kHz~30MHz	Dec. 30, 2011	Jun. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	N/A	Nov. 16, 2011	Jun. 28, 2012	Nov. 15, 2012	Conduction (CO01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Jun. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.26

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.72

Appendix A. Photographs of EUT

Please refer to Sporton report number EP261903-02 as below.