

# FCC RF Test Report

APPLICANT : Hewlett-Packard Company  
EQUIPMENT : Tablet PC  
BRAND NAME : HP 7  
MODEL NAME : HSTNH-B14C  
FCC ID : B94HHB14C  
STANDARD : FCC Part 15 Subpart C §15.247  
CLASSIFICATION : (DTS) Digital Transmission System

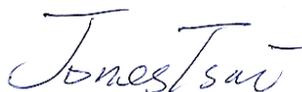
The product was received on Jun. 24, 2013 and completely tested on Jul. 12, 2013. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

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.



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Reviewed by: Joseph Lin / Supervisor



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Approved by: Jones Tsai / Manager



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



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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.1	-	99% Bandwidth	-	Pass	-
3.2	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$	Pass	-
3.4	15.247(d)	Conducted Band Edges	$\leq 20\text{dBc}$	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 5.67 dB at 2389.920 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 3.61 dB at 0.410 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

# 1 General Description

## 1.1 Applicant

**Hewlett-Packard Company**

1501 Page Mill Road, M/S1419, Palo Alto, CA 94304, United States

## 1.2 Manufacturer

**Huizhou BYD Electronic Co., Ltd**

C4 and C6 Building, BYD Industrial Park, Xiangshui River, Economic Development Zone, Daya Bay, Huizhou, Guangdong, P R China

## 1.3 Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	Tablet PC
<b>Brand Name</b>	HP 7
<b>Model Name</b>	HSTNH-B14C
<b>FCC ID</b>	B94HHB14C
<b>EUT supports Radios application</b>	WLAN 11bgn / Bluetooth 2.1+EDR
<b>HW Version</b>	PVT
<b>SW Version</b>	P702T_V01.08_130605
<b>EUT Stage</b>	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## 1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
<b>Tx/Rx Channel Frequency Range</b>	802.11b/g/n : 2412 MHz ~ 2462 MHz
<b>Maximum Output Power to Antenna</b>	802.11b : 17.58 dBm (0.0573 W) 802.11g : 20.42 dBm (0.1102 W) 802.11n HT20 : 20.26 dBm (0.1062 W)
<b>99% Occupied Bandwidth</b>	802.11b : 12.20MHz 802.11g : 17.10MHz 802.11n HT20 : 17.95MHz
<b>Antenna Type</b>	802.11b/g/n : chip Antenna type with gain -3.75 dBi
<b>Type of Modulation</b>	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

## 1.5 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.6 Testing Site

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

**Note:** The test site complies with ANSI C63.4 2003 requirement.

## 1.7 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 v03r01
- ANSI C63.10-2009

**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.

## 2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals 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) and radiated emission (9 KHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

### 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 following table and the highest (Peak) power data rates were chosen for full test in the following tables.

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	17.27	16.97	16.91	16.86
CH 06	2437 MHz	17.19	17.14	16.98	16.84
CH 11	2462 MHz	17.58	17.48	17.42	17.38

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	18.82	18.71	18.62	18.46	18.21	18.27	18.23	18.12
CH 06	2437 MHz	19.45	19.41	19.37	19.32	19.26	19.11	19.13	19.41
CH 11	2462 MHz	20.42	20.34	20.21	20.14	20.05	19.98	19.87	19.72

Channel	Frequency	2.4GHz 802.11n HT20 RF Power (dBm)							
		OFDM Data Rate							
		6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 01	2412 MHz	19.41	19.21	18.82	18.69	18.58	18.43	18.26	18.12
CH 06	2437 MHz	19.62	19.42	19.31	19.14	18.92	19.21	19.08	18.92
CH 11	2462 MHz	20.26	20.12	19.92	19.87	19.72	19.68	20.19	20.07

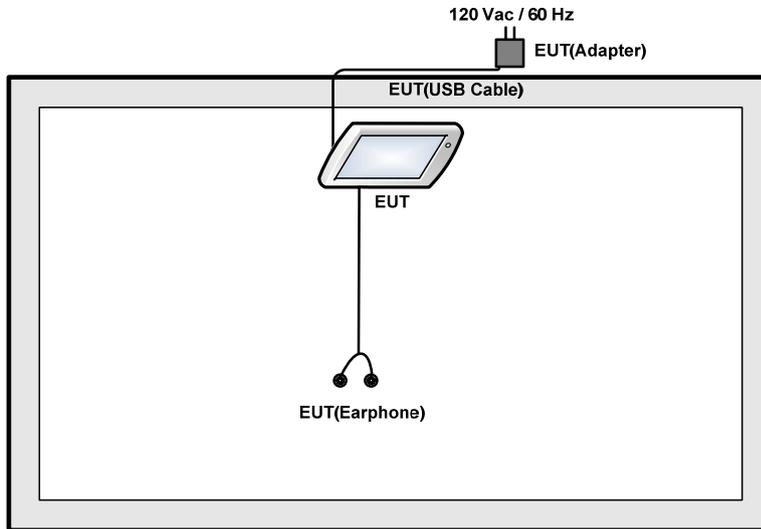
## 2.3 Test Mode

Final results of test modes, data rates and test channels are shown as following table.

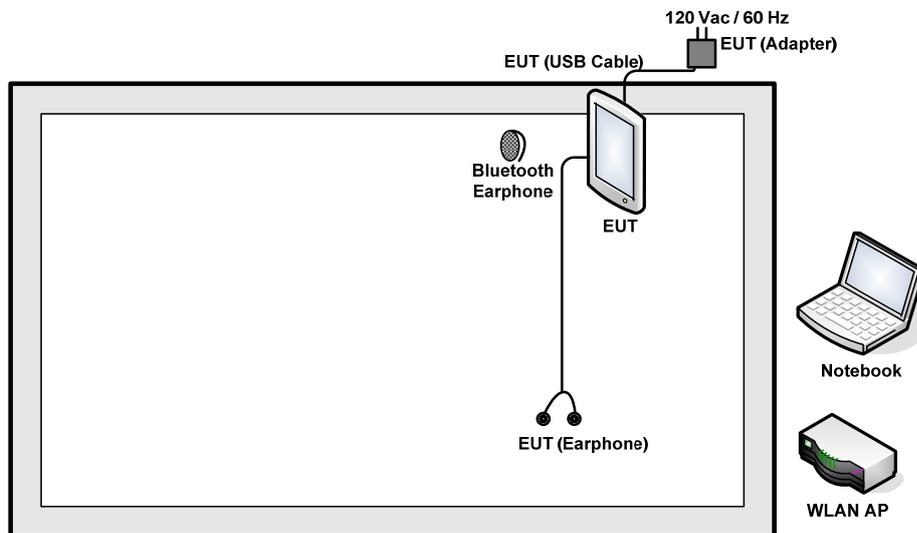
Test Cases				
	Test Items	Mode	Data Rate	Test Channel
Conducted TCs	6dB and 99% OB BW Power Spectral Density	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
	Output Power	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
	Conducted Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	6.5 Mbps	1/11
Conducted Spurious Emission	802.11b	1 Mbps	1/6/11	
	802.11g	6 Mbps	1/6/11	
	802.11n HT20	6.5 Mbps	1/6/11	
Radiated TCs	Radiated Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	6.5 Mbps	1/11
	Radiated Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
AC Conducted Emission	<b>Mode 1:</b> Bluetooth Link + WLAN Link + USB Cable (Charging from Adapter) + Earphone			
<b>Remark:</b> The worst case of conducted emission is mode; only the test data of it was reported.				

## 2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



## 2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	N/A
3.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 0.9 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A

## 2.6 EUT Operation Test Setup

For WLAN RF test items, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

## 2.7 Measurement Results Explanation Example

**For all conducted test items:**

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 5.6 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 5.6 + 10 = 15.6(\text{dB}) \end{aligned}$$

### 3 Test Result

#### 3.1 6dB and 99% Bandwidth Measurement

##### 3.1.1 Limit of 6dB and 99% Bandwidth

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

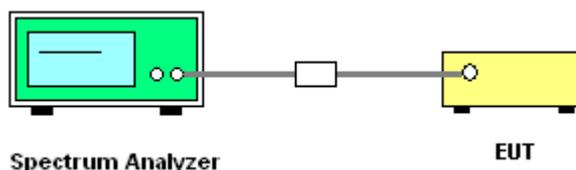
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 KHz.
5. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 1MHz and set the Video bandwidth (VBW) = 3MHz.
6. Measure and record the results in the test report.

##### 3.1.4 Test Setup





3.1.5 Test Result of 6dB Bandwidth

Test Mode :	802.11b	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	7.04	0.5	Pass
06	2437	7.04	0.5	Pass
11	2462	7.04	0.5	Pass

Test Mode :	802.11g	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	15.08	0.5	Pass
06	2437	15.12	0.5	Pass
11	2462	15.08	0.5	Pass

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	15.04	0.5	Pass
06	2437	15.12	0.5	Pass
11	2462	15.04	0.5	Pass



3.1.6 Test Result of 99% Occupied Bandwidth

Test Mode :	802.11b	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b 99% Occupied Bandwidth (MHz)	Pass/Fail
01	2412	12.15	Pass
06	2437	12.20	Pass
11	2462	12.20	Pass

Test Mode :	802.11g	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g 99% Occupied Bandwidth (MHz)	Pass/Fail
01	2412	17.10	Pass
06	2437	17.05	Pass
11	2462	16.95	Pass

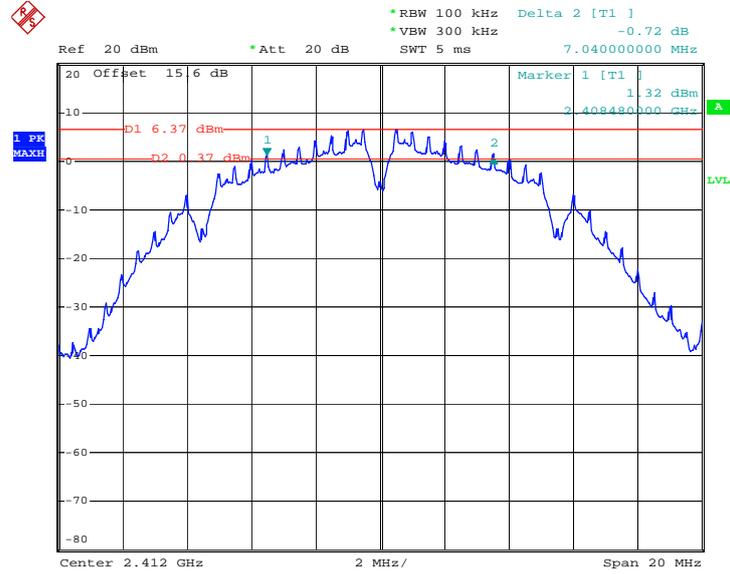
Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 99% Occupied Bandwidth (MHz)	Pass/Fail
01	2412	17.95	Pass
06	2437	17.90	Pass
11	2462	17.90	Pass



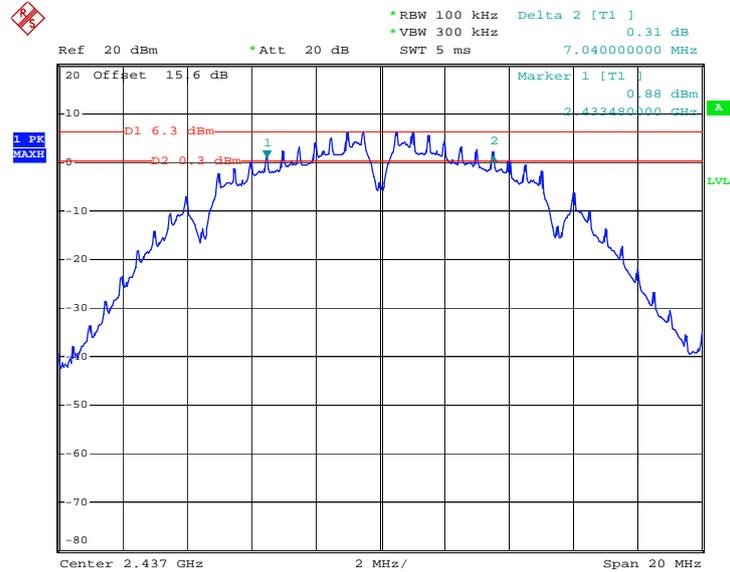
### 3.1.7 Test Result of 6dB Bandwidth Plots

#### 6 dB Bandwidth Plot on 802.11b Channel 01



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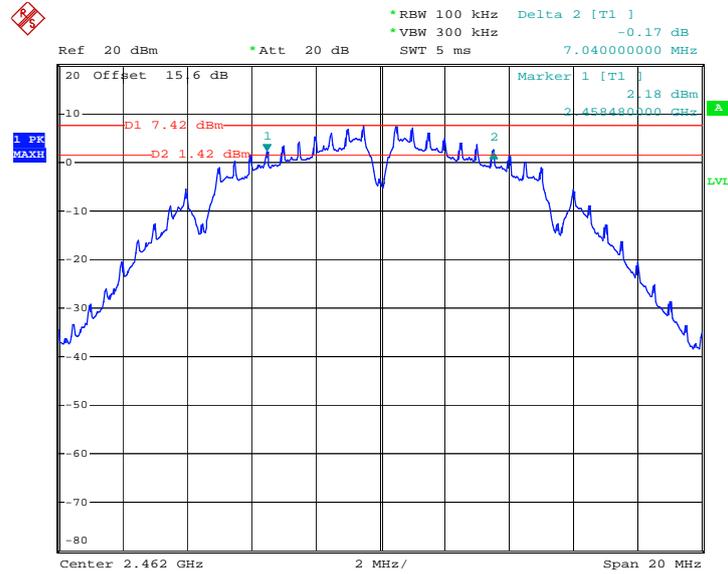
#### 6 dB Bandwidth Plot on 802.11b Channel 06



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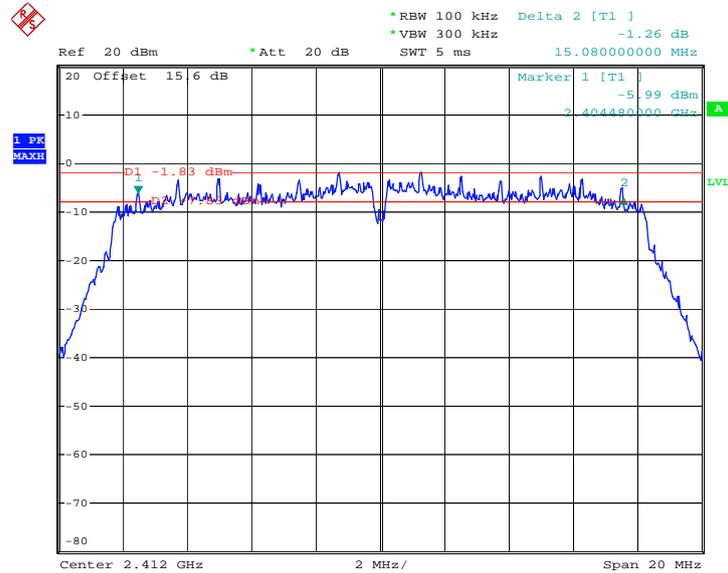


6 dB Bandwidth Plot on 802.11b Channel 11



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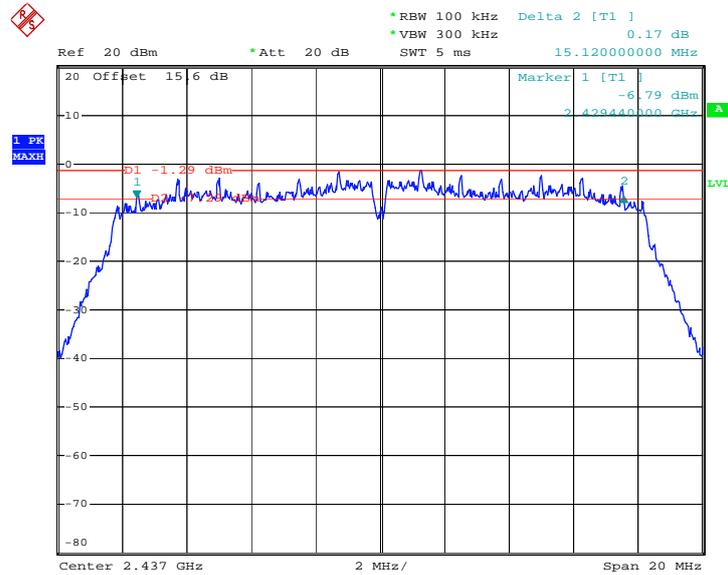
6 dB Bandwidth Plot on 802.11g Channel 01



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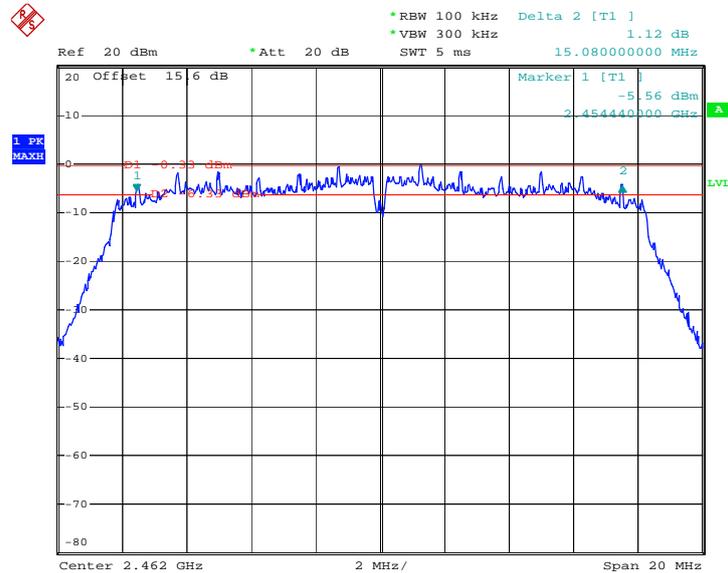


6 dB Bandwidth Plot on 802.11g Channel 06



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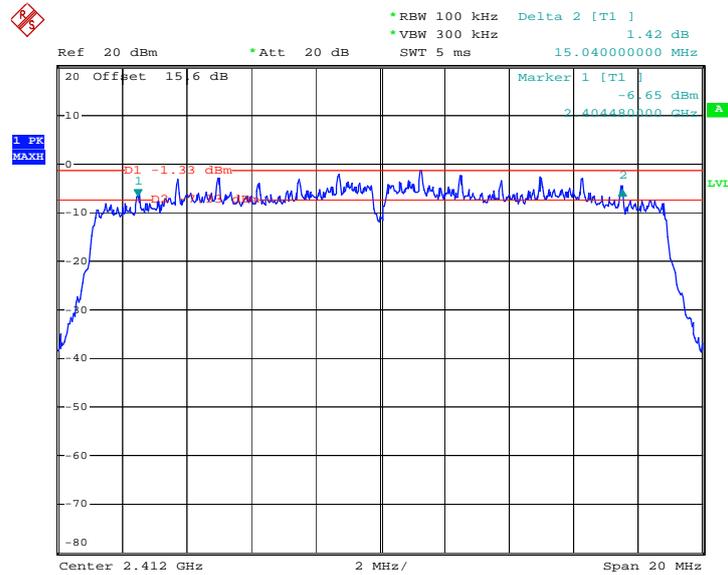
6 dB Bandwidth Plot on 802.11g Channel 11



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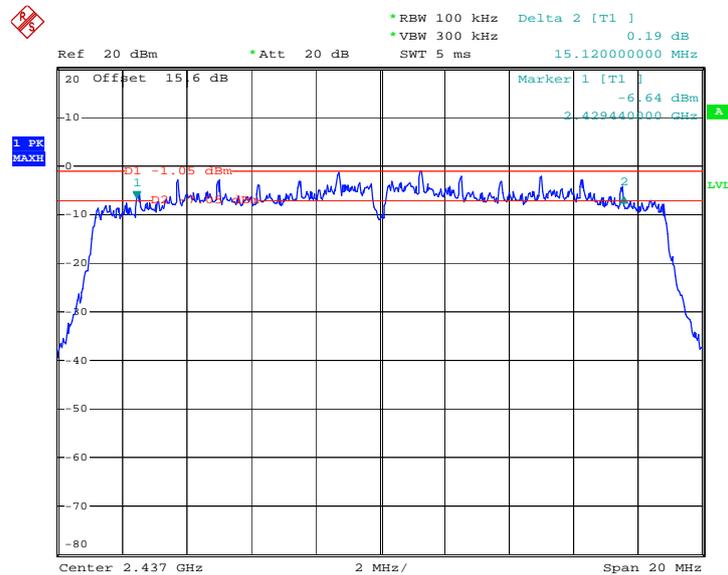


6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 01



Date: 4.JUL.2013 10:44:29

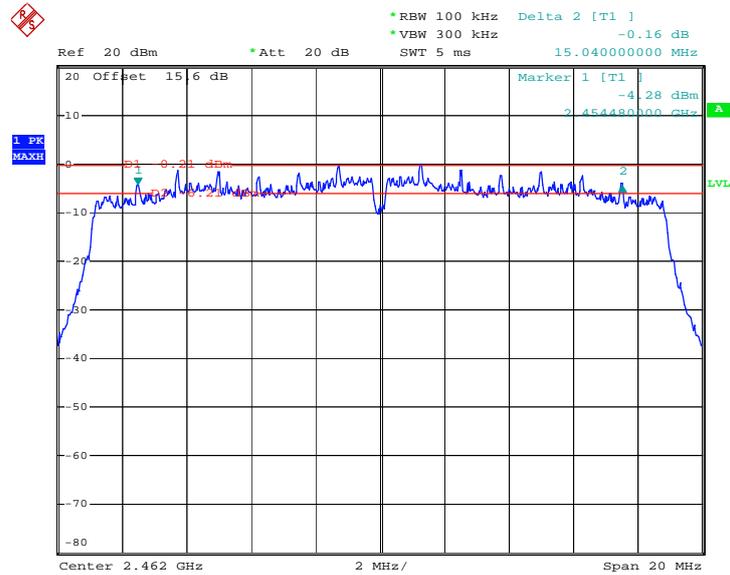
6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 06



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6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 11

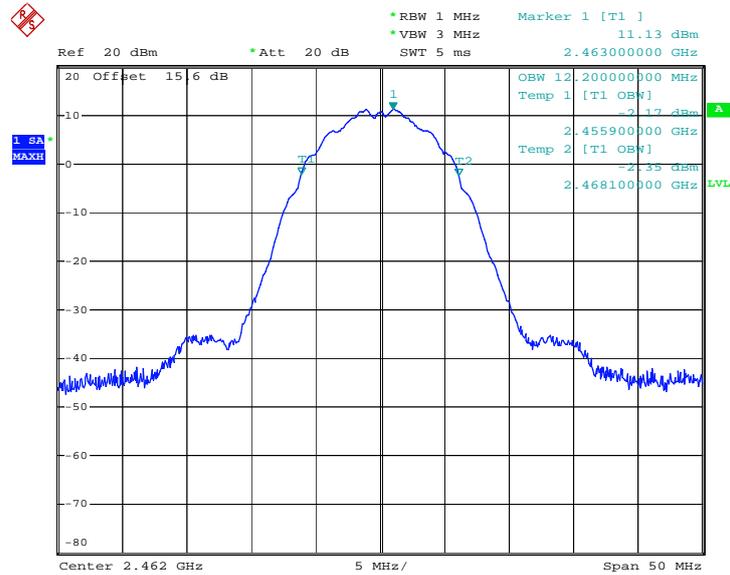


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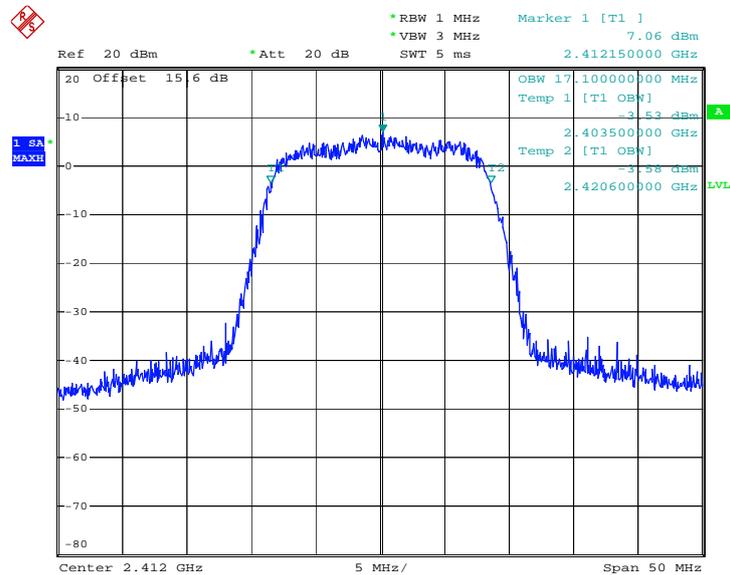


99% Occupied Bandwidth Plot on 802.11b Channel 11



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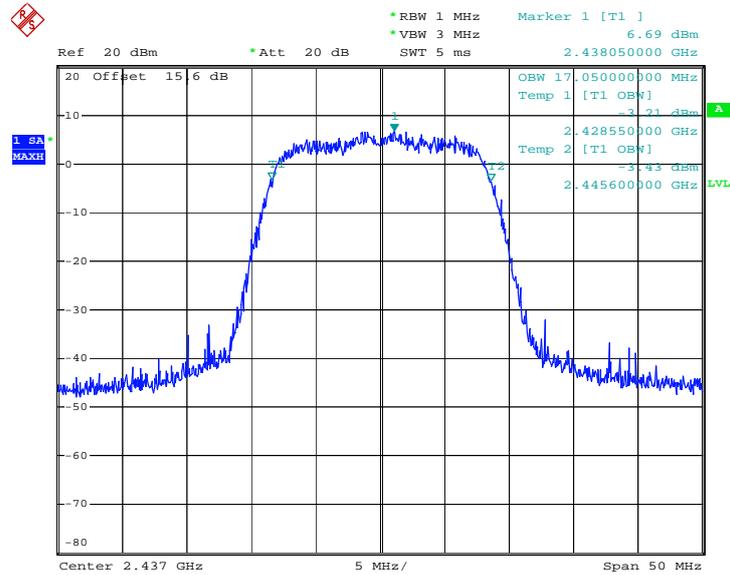
99% Occupied Bandwidth Plot on 802.11g Channel 01



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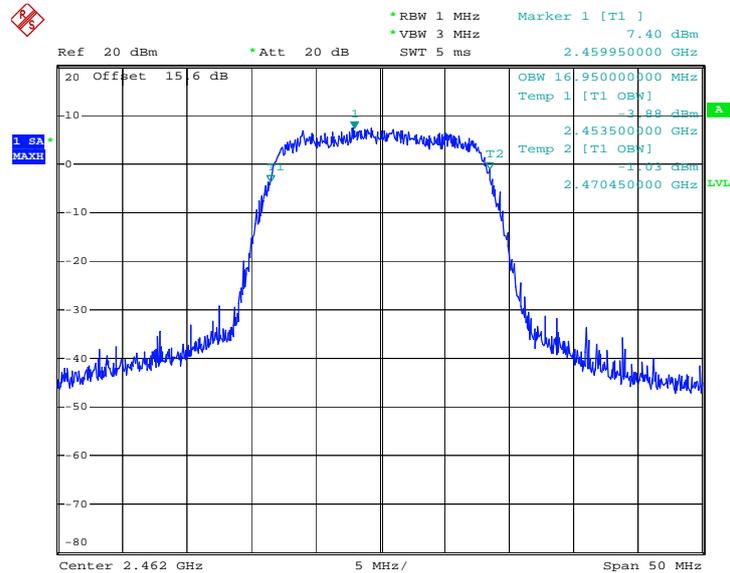


99% Occupied Bandwidth Plot on 802.11g Channel 06



Date: 4.JUL.2013 10:39:56

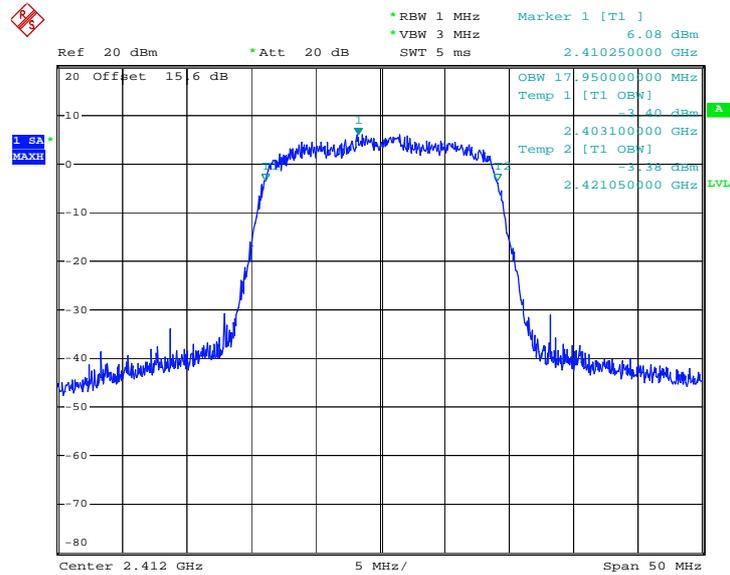
99% Occupied Bandwidth Plot on 802.11g Channel 11



Date: 4.JUL.2013 10:42:55

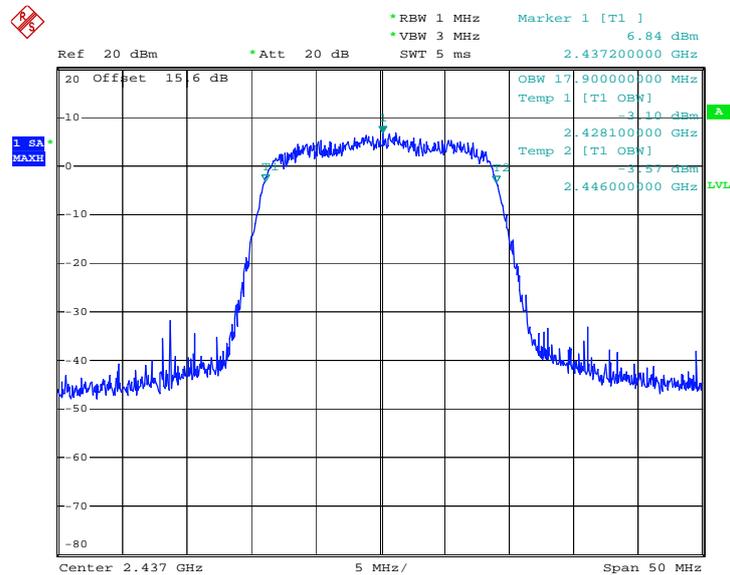


99% Occupied Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 01



Date: 4.JUL.2013 10:46:09

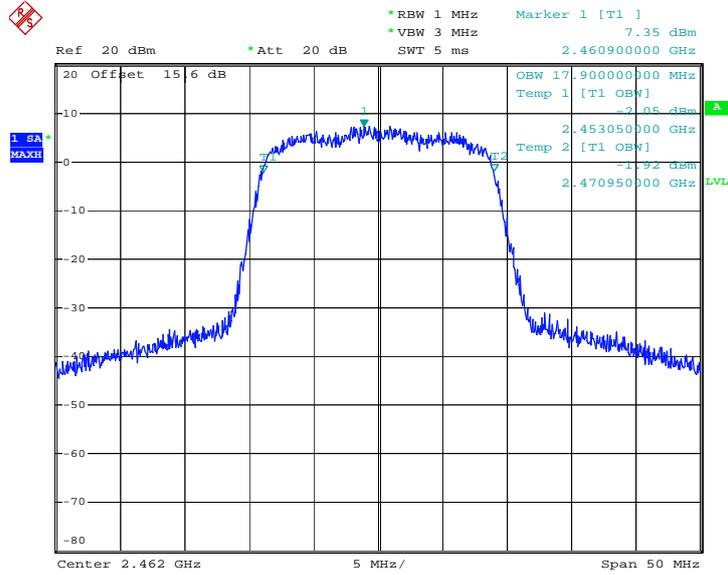
99% Occupied Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 06



Date: 4.JUL.2013 10:54:01



99% Occupied Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 11



Date: 4.JUL.2013 10:57:06

## 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.

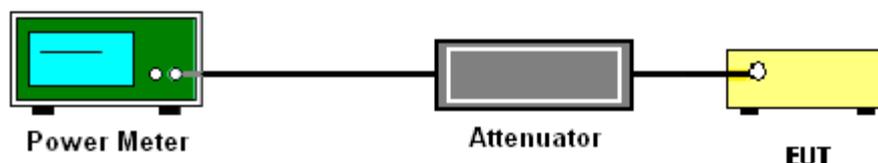
### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

### 3.2.4 Test Setup





3.2.5 Test Result of Peak Output Power

Test Mode :	802.11b	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	17.27	30	Pass
06	2437	17.19	30	Pass
11	2462	17.58	30	Pass

Test Mode :	802.11g	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	18.82	30	Pass
06	2437	19.45	30	Pass
11	2462	20.42	30	Pass

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	19.41	30	Pass
06	2437	19.62	30	Pass
11	2462	20.26	30	Pass



3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%
Duty Cycle:	100%	Duty Factor:	0.00dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	14.27
06	2437	14.12
11	2462	15.12

Test Mode :	802.11g	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%
Duty Cycle:	94.93%	Duty Factor:	0.23dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	8.96
06	2437	9.39
11	2462	10.35

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Engineer :	Adonis Li	Relative Humidity :	47~48%
Duty Cycle:	94.49%	Duty Factor:	0.25dB

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Average Output Power (dBm)
01	2412	8.67
06	2437	9.37
11	2462	10.34

### 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.

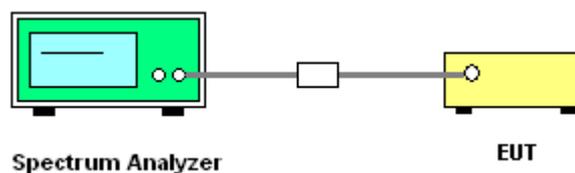
#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
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.
6. Measure and record the results in the test report.
7. The Measured power density (dBm)/ 100KHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

#### 3.3.4 Test Setup



**3.3.5 Test Result of Power Spectral Density**

<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Engineer :</b>	Adonis Li	<b>Relative Humidity :</b>	47~48%

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
01	2412	6.51	-7.56	8	Pass
06	2437	6.24	-8.65	8	Pass
11	2462	7.19	-7.00	8	Pass

<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Engineer :</b>	Adonis Li	<b>Relative Humidity :</b>	47~48%

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
01	2412	-1.82	-15.57	8	Pass
06	2437	-1.17	-14.71	8	Pass
11	2462	-0.29	-14.76	8	Pass

<b>Test Mode :</b>	802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Engineer :</b>	Adonis Li	<b>Relative Humidity :</b>	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
01	2412	-1.90	-15.74	8	Pass
06	2437	-1.46	-15.40	8	Pass
11	2462	-0.52	-14.25	8	Pass

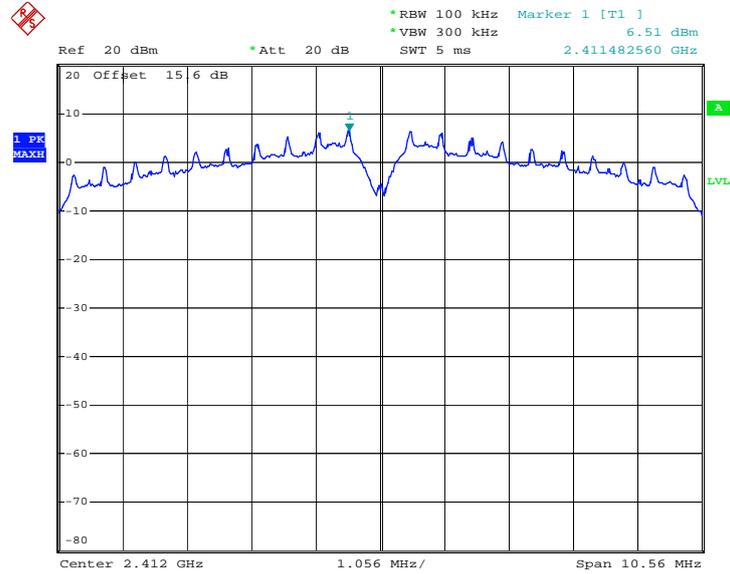
**Note:**

1. Measured power density (dBm) has offset with cable loss.
2. The Measured power density (dBm)/ 100kHz is reference level and used as 20dBc down for Conducted Band Edges and Conducted Spurious Emission limit line.



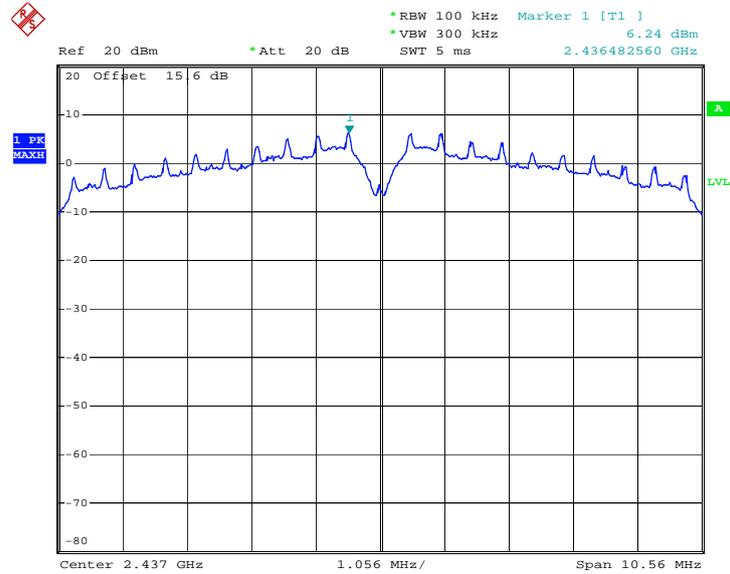
### 3.3.6 Test Result of Power Spectral Density Plots (100kHz)

PSD 100kHz Plot on 802.11b Channel 01



Date: 7.JUL.2013 11:57:35

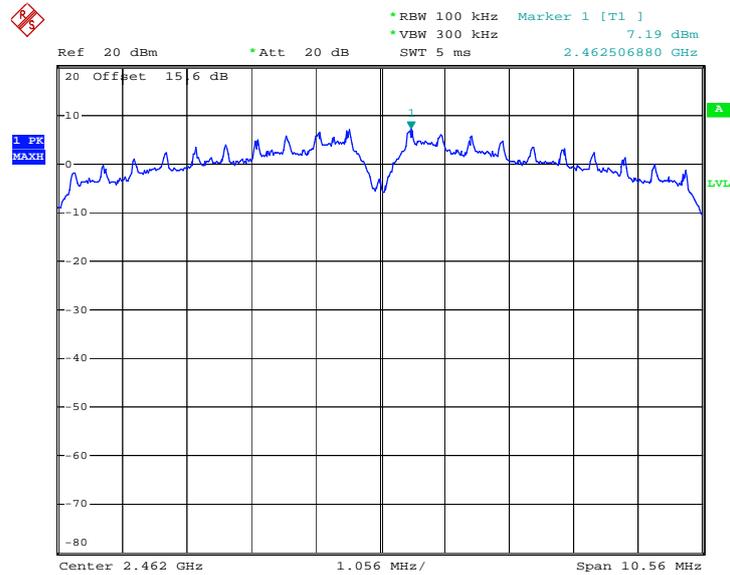
PSD 100kHz Plot on 802.11b Channel 06



Date: 7.JUL.2013 12:30:29

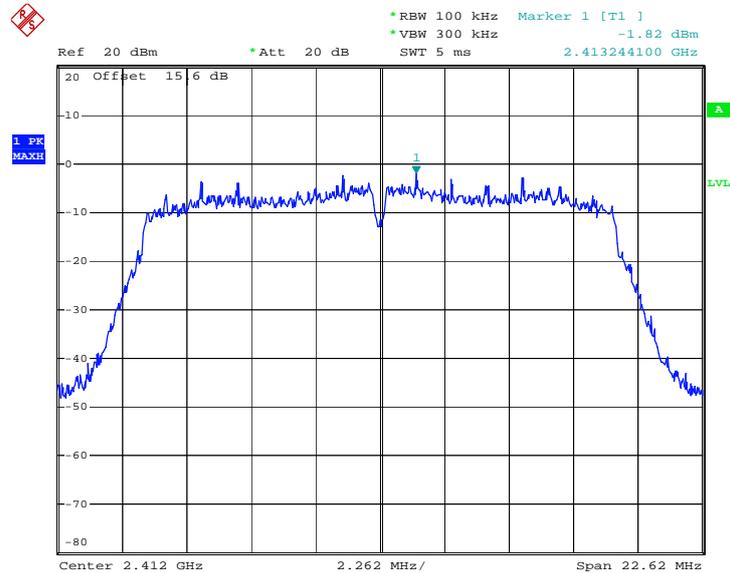


PSD 100kHz Plot on 802.11b Channel 11



Date: 7.JUL.2013 12:35:07

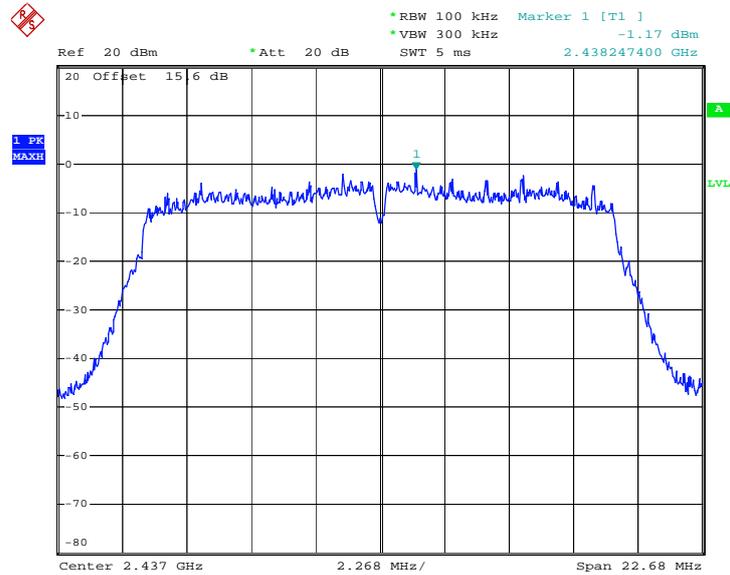
PSD 100kHz Plot on 802.11g Channel 01



Date: 4.JUL.2013 10:35:16

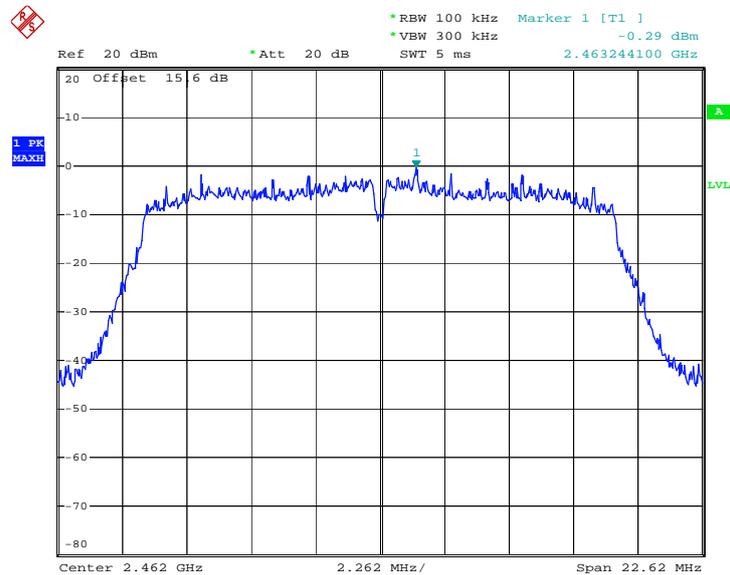


PSD 100kHz Plot on 802.11g Channel 06



Date: 4.JUL.2013 10:38:45

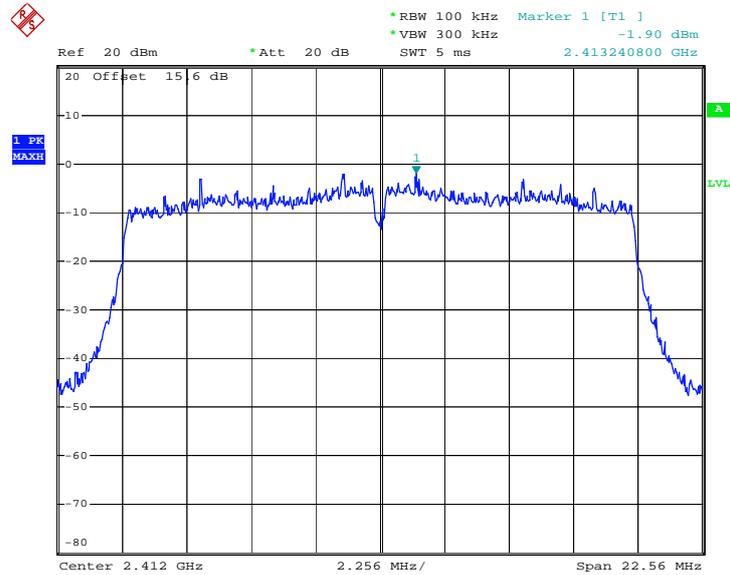
PSD 100kHz Plot on 802.11g Channel 11



Date: 4.JUL.2013 10:41:48

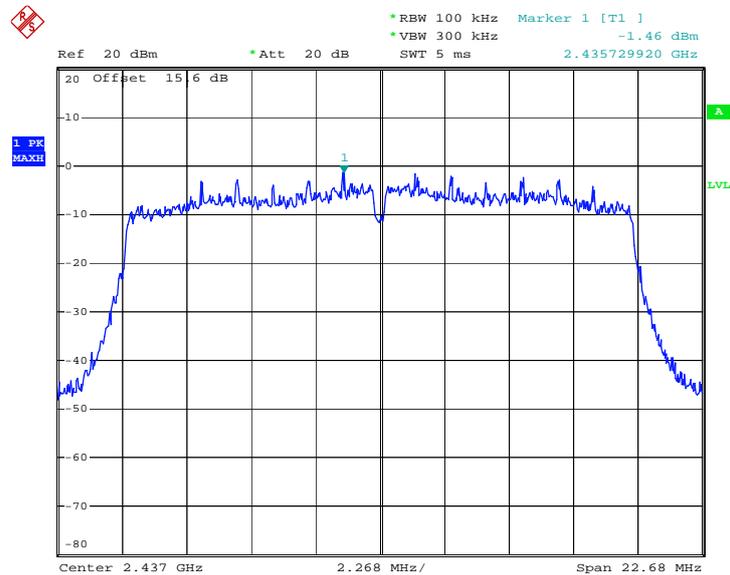


PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 01



Date: 4.JUL.2013 10:45:02

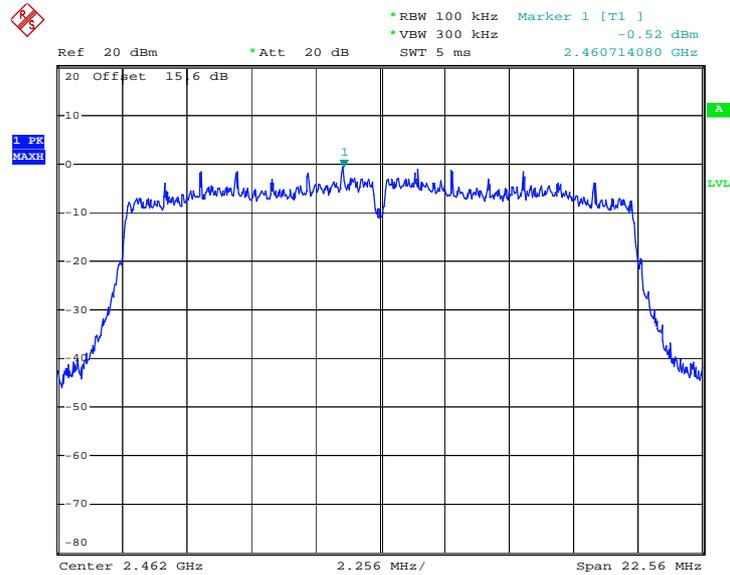
PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 06



Date: 4.JUL.2013 10:53:09



PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 11

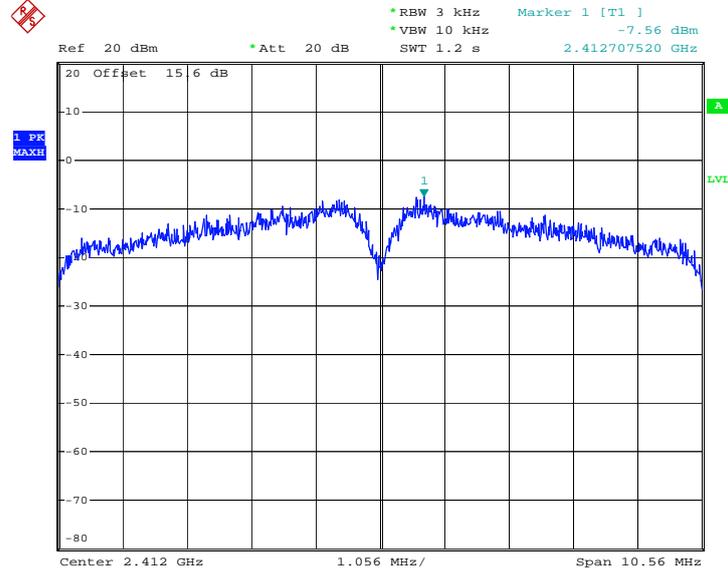


Date: 4.JUL.2013 10:55:59



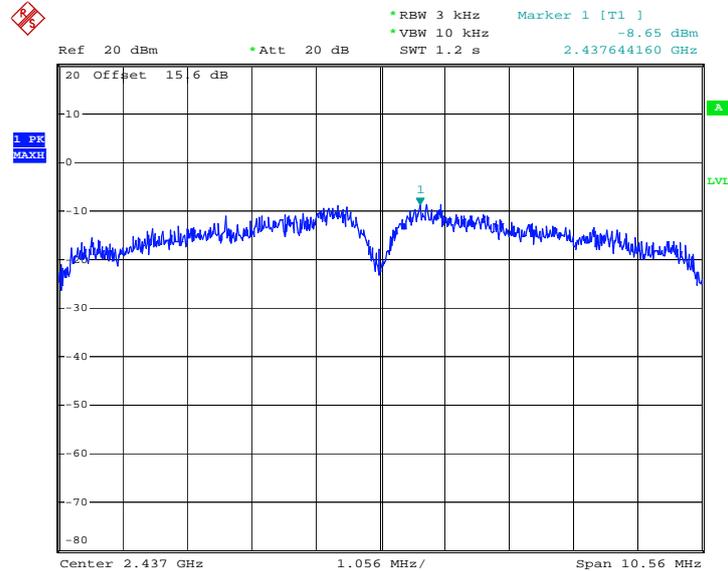
### 3.3.7 Test Result of Power Spectral Density Plots (3kHz)

PSD 3kHz Plot on 802.11b Channel 01



Date: 7.JUL.2013 11:57:17

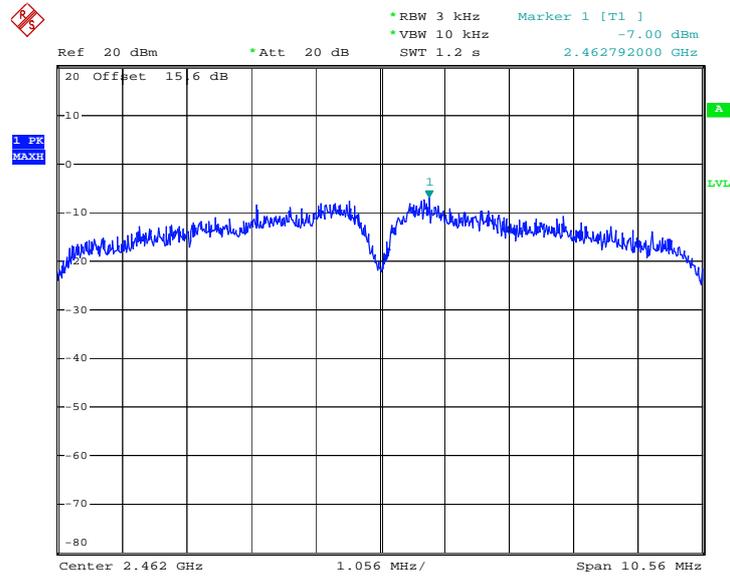
PSD 3kHz Plot on 802.11b Channel 06



Date: 7.JUL.2013 12:30:17

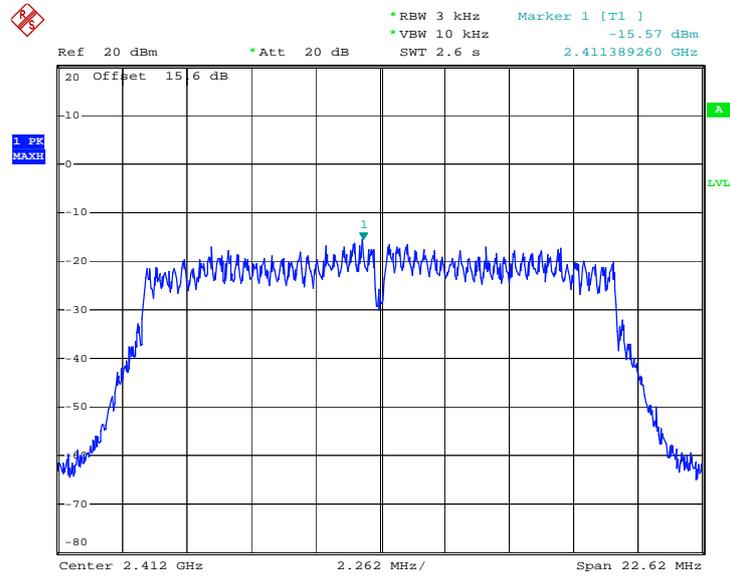


PSD 3kHz Plot on 802.11b Channel 11



Date: 7.JUL.2013 12:34:55

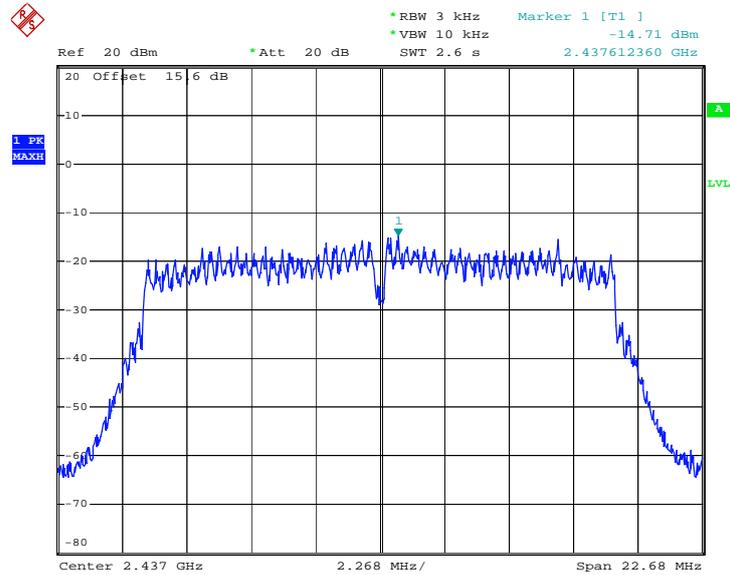
PSD 3kHz Plot on 802.11g Channel 01



Date: 4.JUL.2013 10:35:06

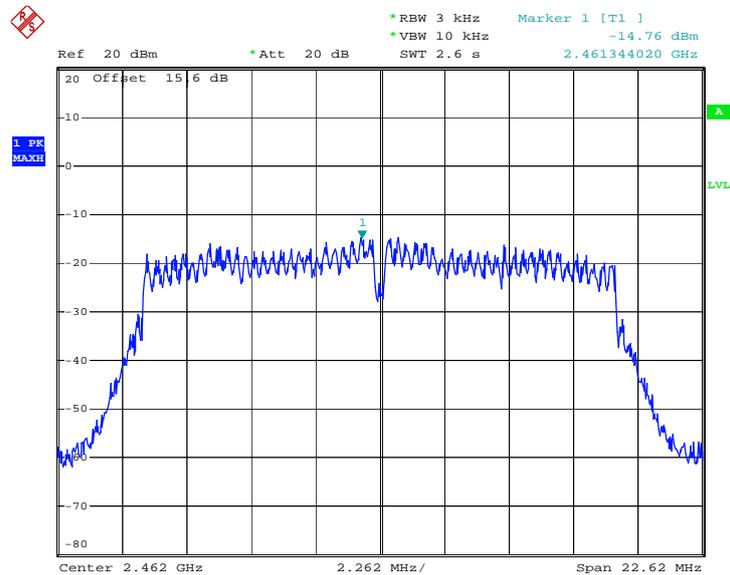


PSD 3kHz Plot on 802.11g Channel 06



Date: 4.JUL.2013 10:38:35

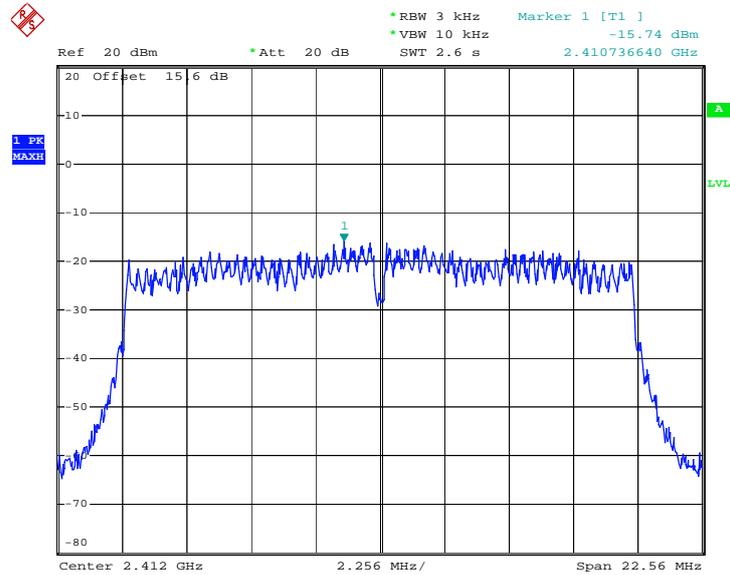
PSD 3kHz Plot on 802.11g Channel 11



Date: 4.JUL.2013 10:41:38

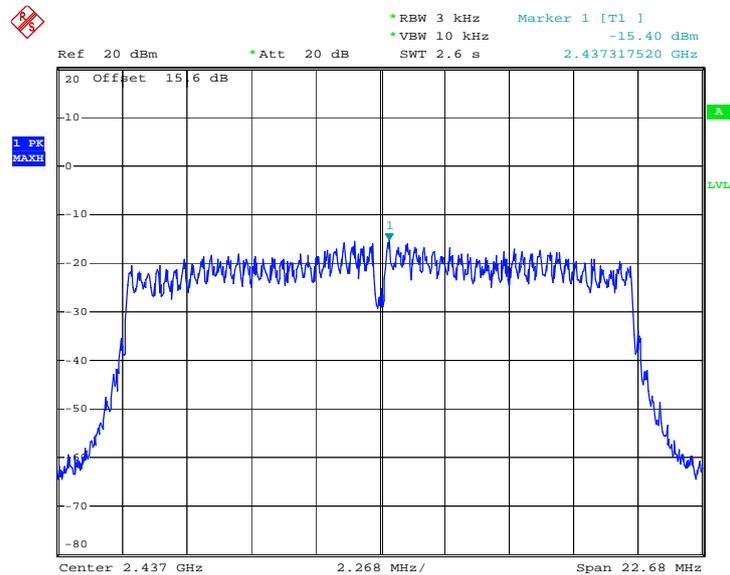


PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 01



Date: 4.JUL.2013 10:44:52

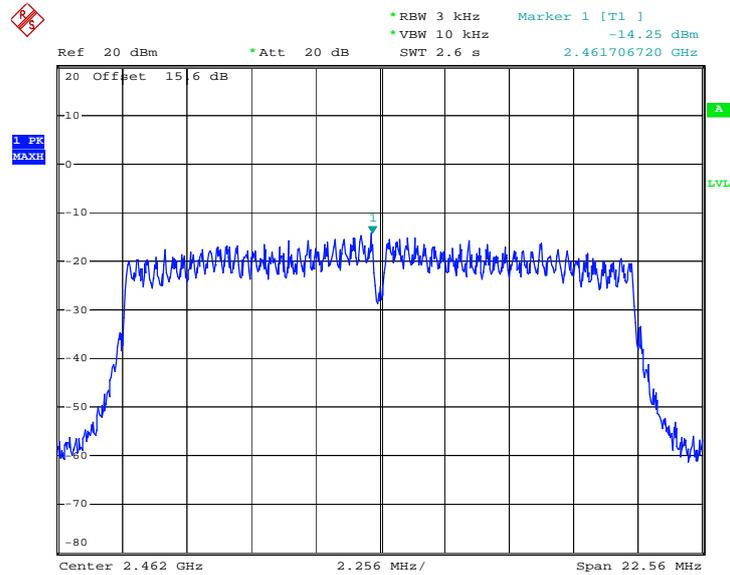
PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 06



Date: 4.JUL.2013 10:52:59



PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 11



Date: 4.JUL.2013 10:55:49

## 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).

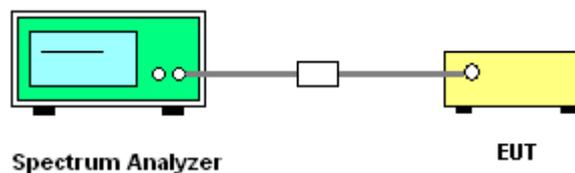
### 3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. 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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

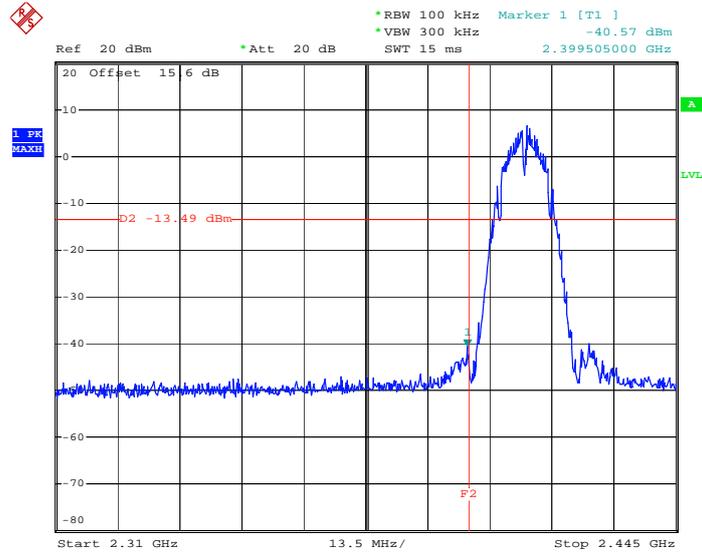
### 3.4.4 Test Setup



2.4.5 Test Result of Conducted Spurious at Band Edges

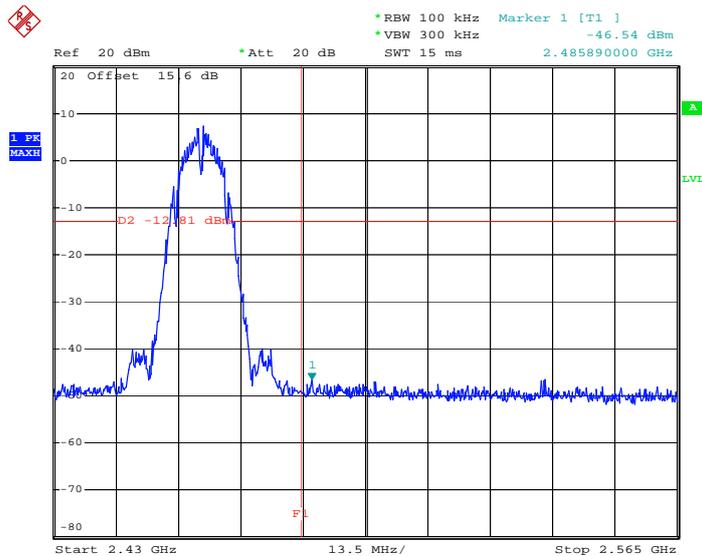
Test Mode :	802.11b	Temperature :	23~24°C
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Adonis Li

Low Band Edge Plot on 802.11b Channel 01



Date: 7.JUL.2013 13:12:39

High Band Edge Plot on 802.11b Channel 11

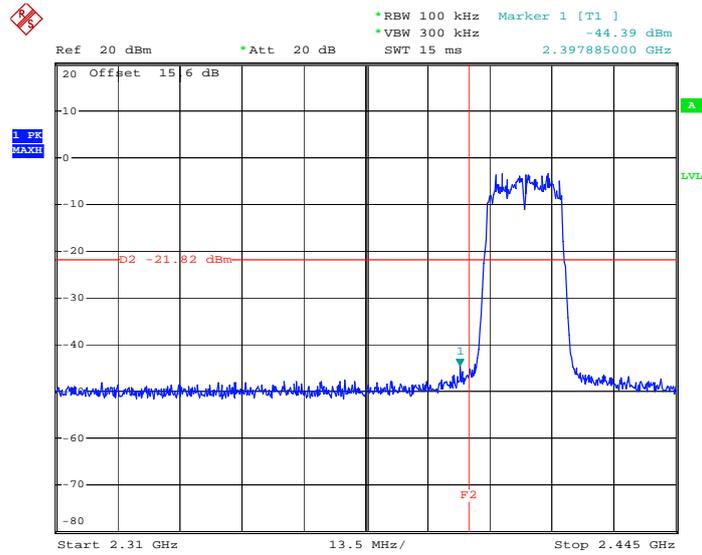


Date: 7.JUL.2013 12:35:28



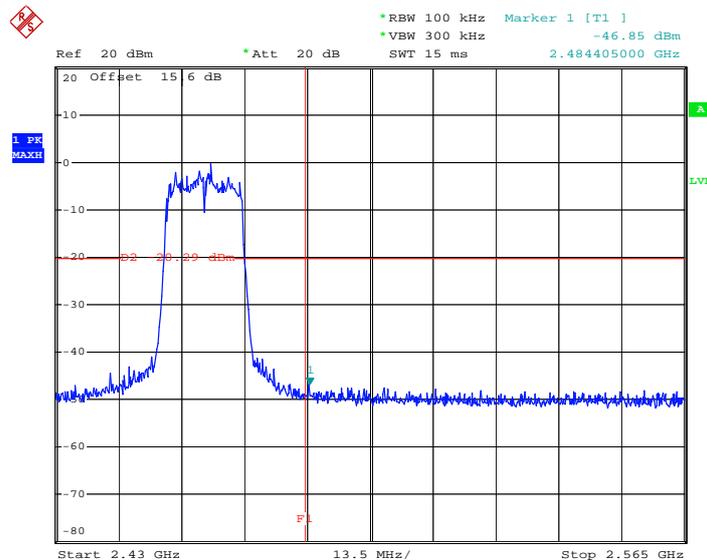
Test Mode :	802.11g	Temperature :	23~24°C
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Adonis Li

Low Band Edge Plot on 802.11g Channel 01



Date: 4.JUL.2013 10:35:32

High Band Edge Plot on 802.11g Channel 11

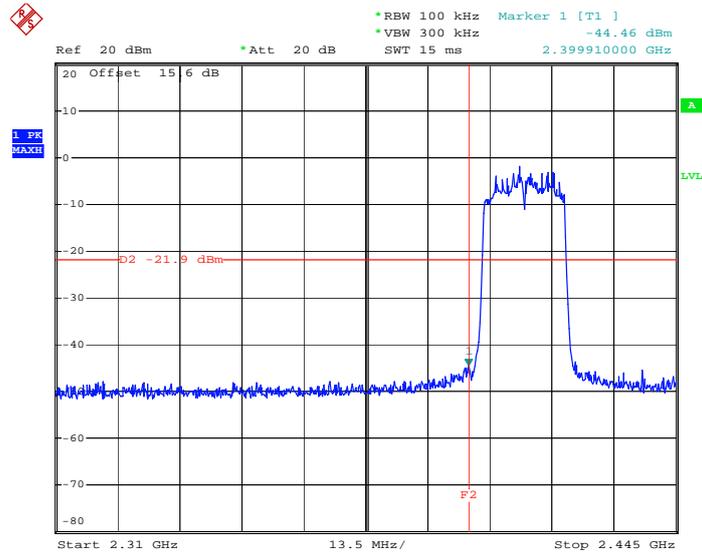


Date: 4.JUL.2013 10:42:03



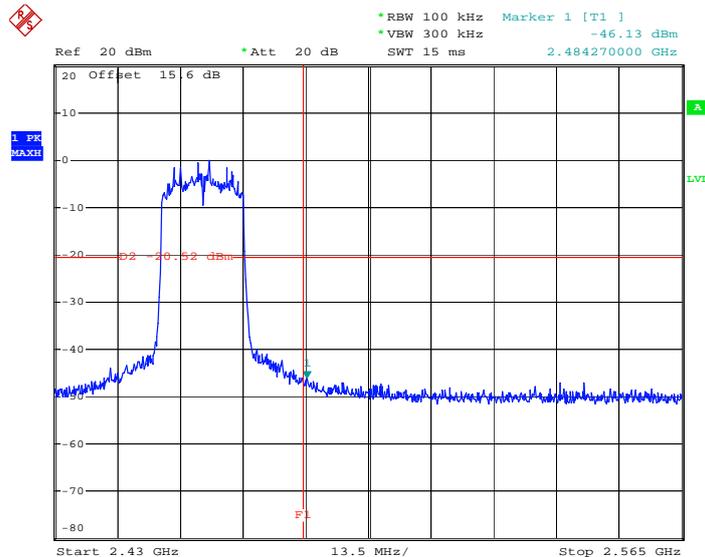
Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Band :	Low and High	Relative Humidity :	47~48%
Test Channel :	01 and 11	Test Engineer :	Adonis Li

Low Band Edge Plot on 2.4GHz 802.11n HT20 Channel 01



Date: 4.JUL.2013 10:45:17

High Band Edge Plot on 2.4GHz 802.11n HT20 Channel 11



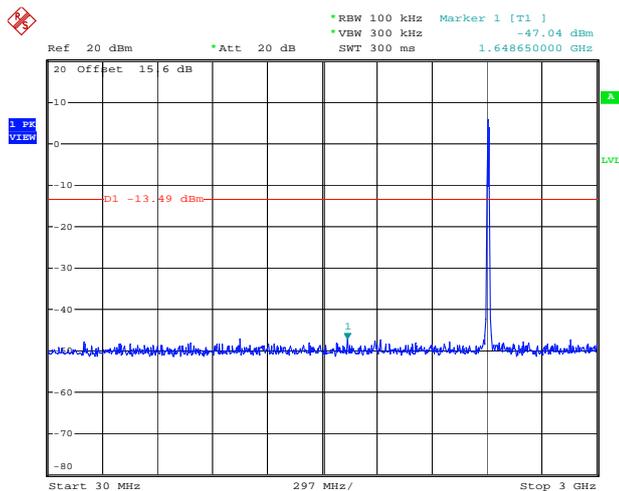
Date: 4.JUL.2013 10:56:14

### 3.4.5 Test Result of Conducted Spurious Emission

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

#### 802.11b 30 MHz~3 GHz

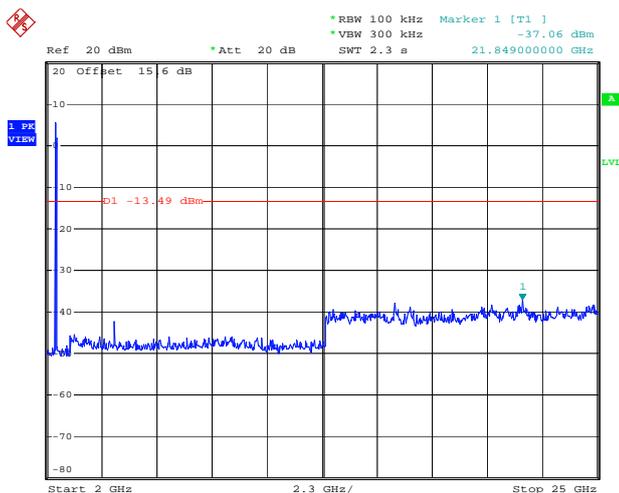
#### Conducted Spurious Emission Plot on Channel 01



Date: 7.JUL.2013 11:59:08

#### 802.11b 2 GHz~25 GHz

#### Conducted Spurious Emission Plot on Channel 01

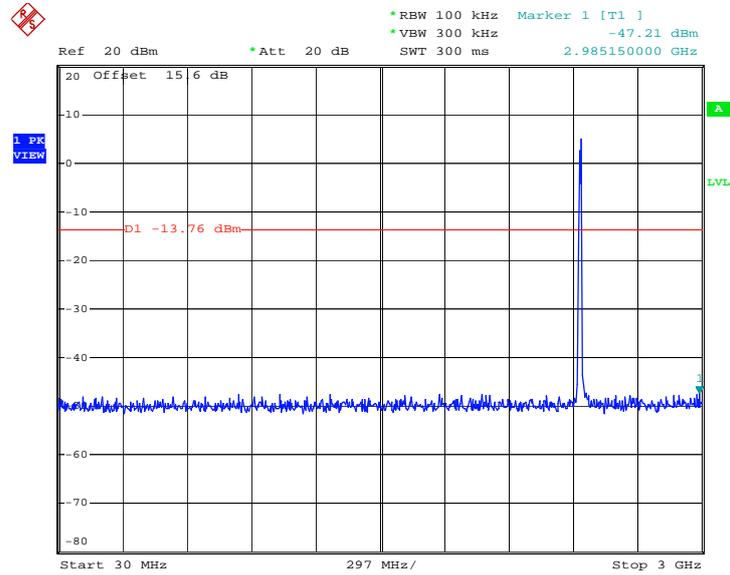


Date: 7.JUL.2013 11:59:27



802.11b 30 MHz~3 GHz

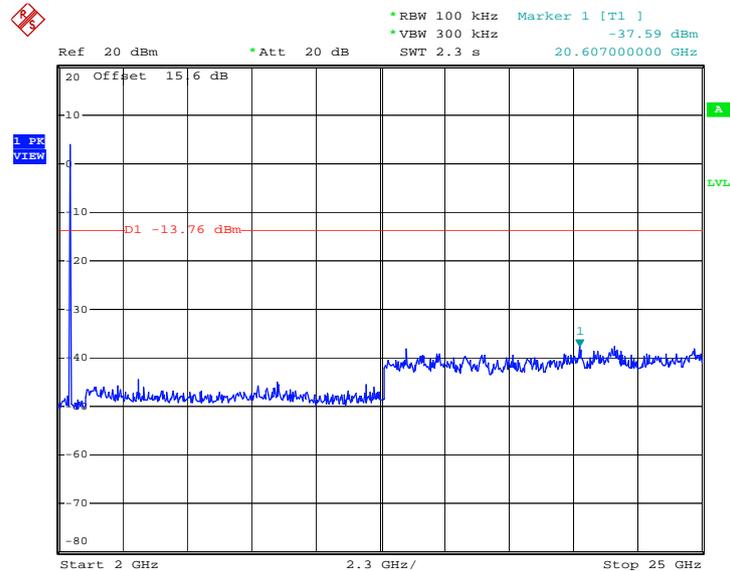
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 12:30:53

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 06

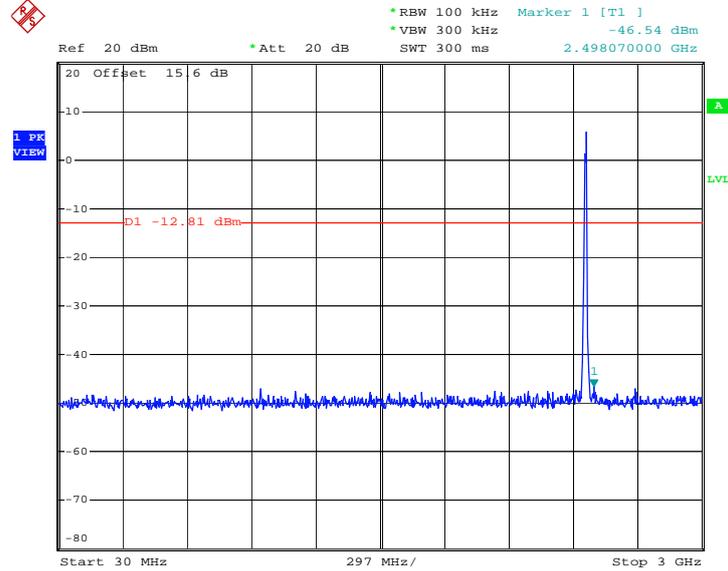


Date: 7.JUL.2013 12:31:12



802.11b 30 MHz~3 GHz

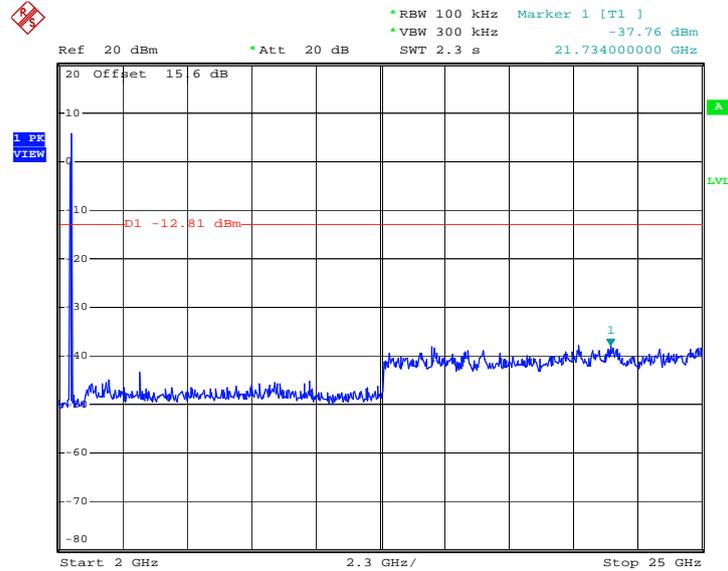
Conducted Spurious Emission Plot on Channel 11



Date: 7.JUL.2013 12:35:53

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



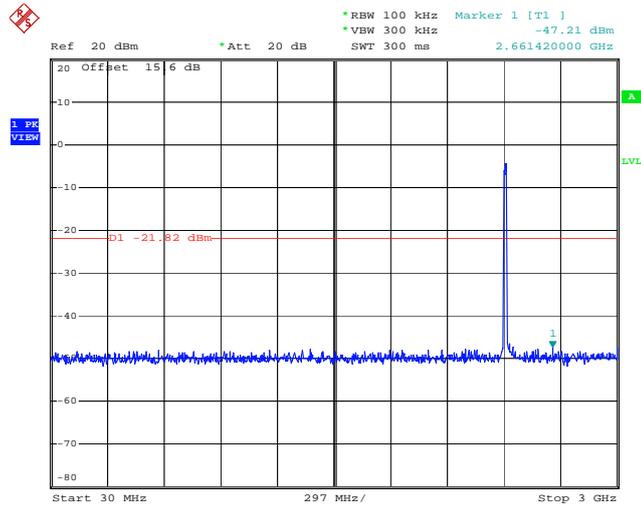
Date: 7.JUL.2013 12:36:12



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

802.11g 30 MHz~3 GHz

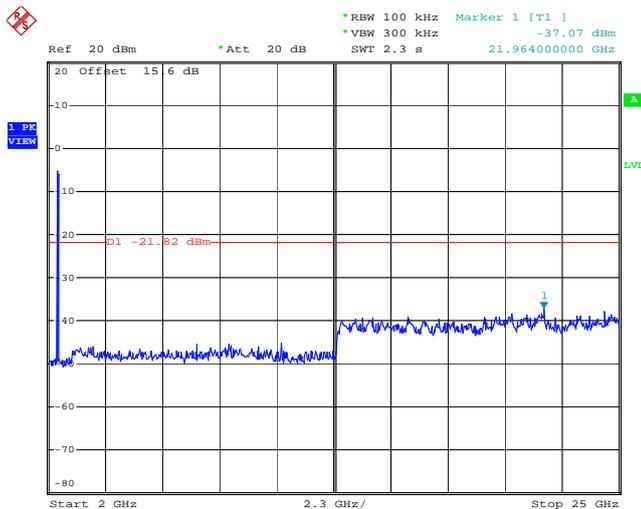
Conducted Spurious Emission Plot on Channel 01



Date: 4.JUL.2013 10:35:52

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 01

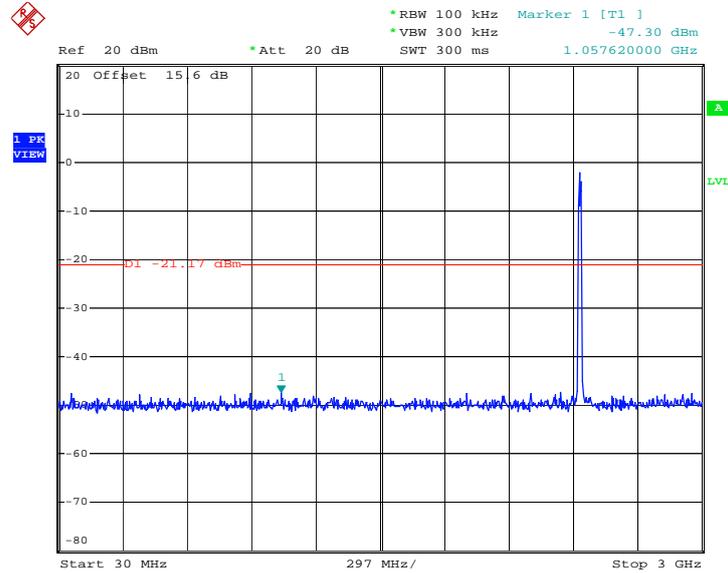


Date: 4.JUL.2013 10:36:11



802.11g 30 MHz~3 GHz

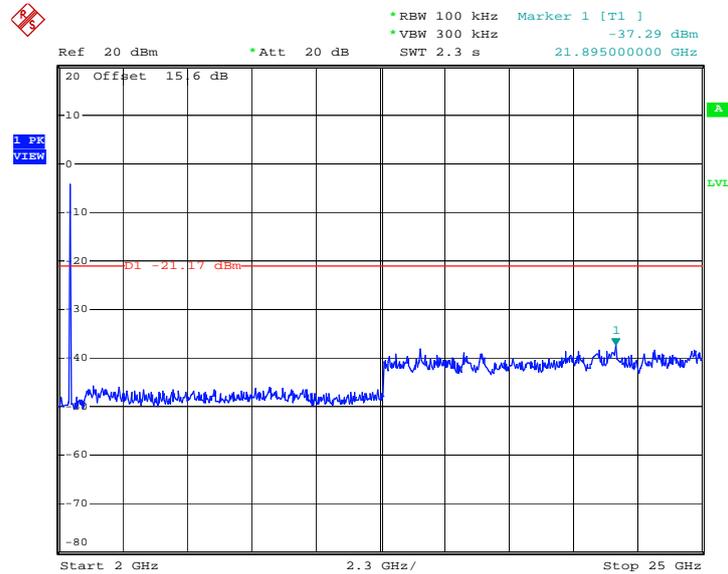
Conducted Spurious Emission Plot on Channel 06



Date: 4.JUL.2013 10:39:05

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 06

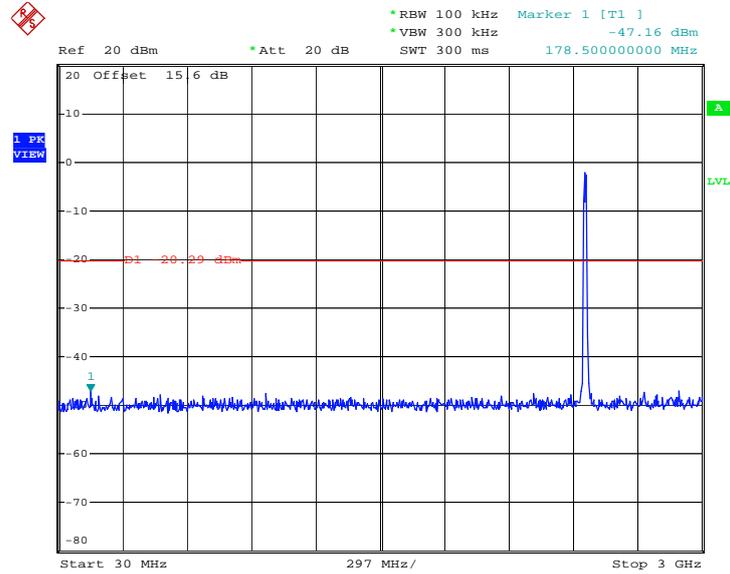


Date: 4.JUL.2013 10:39:25



802.11g 30 MHz~3 GHz

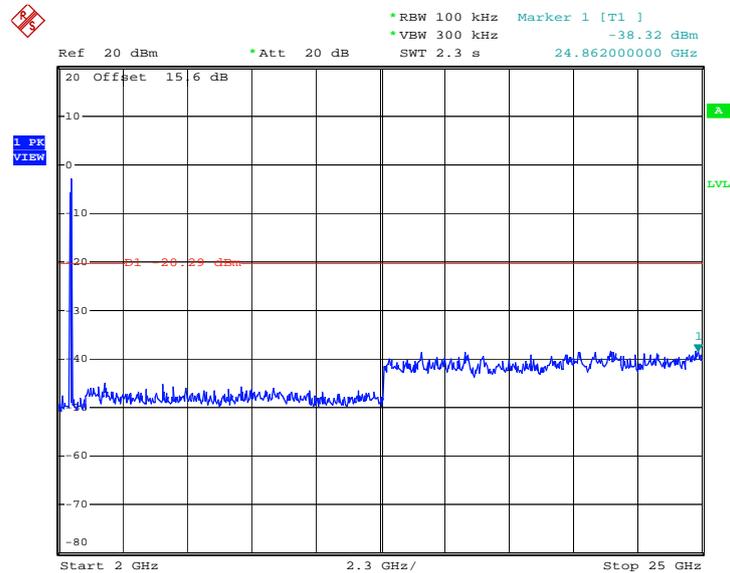
Conducted Spurious Emission Plot on Channel 11



Date: 4.JUL.2013 10:42:24

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



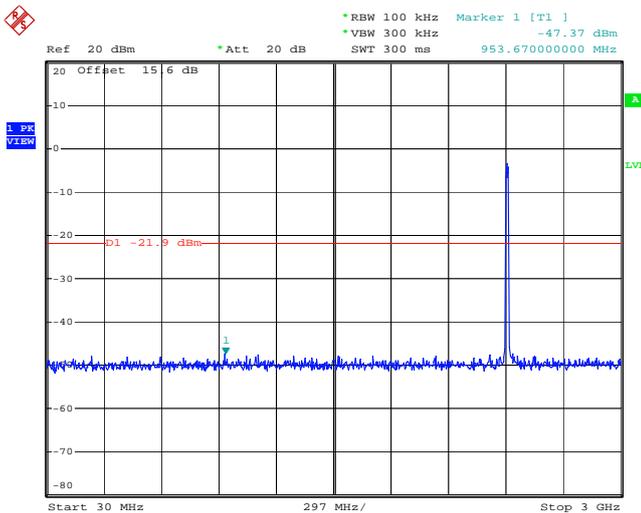
Date: 4.JUL.2013 10:42:43



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	47~48%
Test Channel :	01, 06, 11	Test Engineer :	Adonis Li

2.4GHz 802.11n HT20 30 MHz~3 GHz

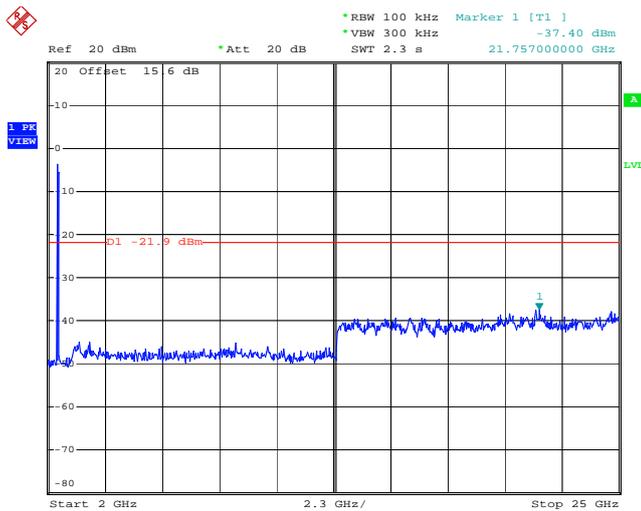
Conducted Spurious Emission Plot on Channel 01



Date: 4.JUL.2013 10:45:38

2.4GHz 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 01

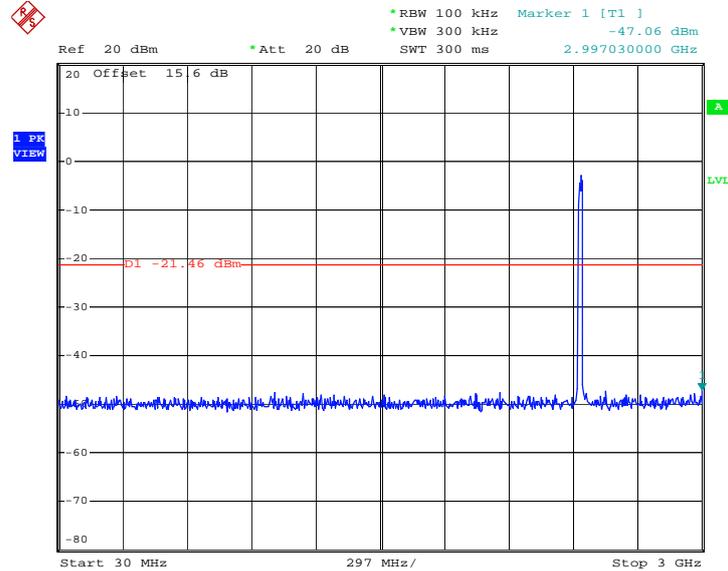


Date: 4.JUL.2013 10:45:57



2.4GHz 802.11n HT20 30 MHz~3 GHz

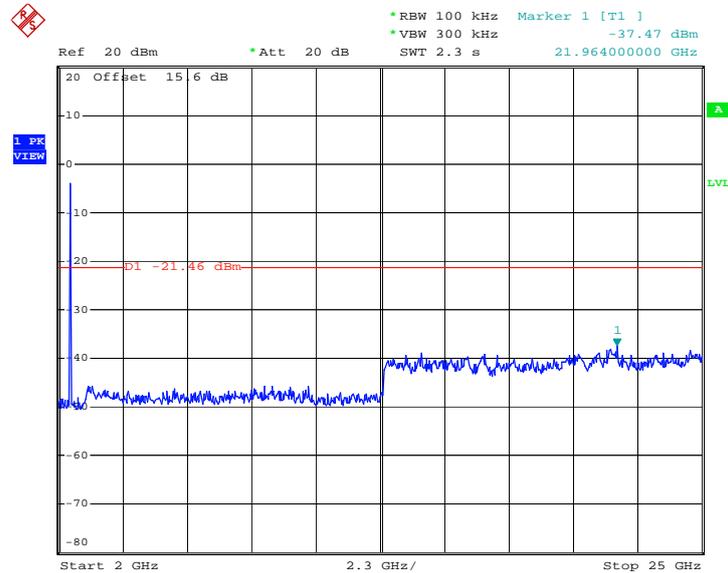
Conducted Spurious Emission Plot on Channel 06



Date: 4.JUL.2013 10:53:30

2.4GHz 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 06

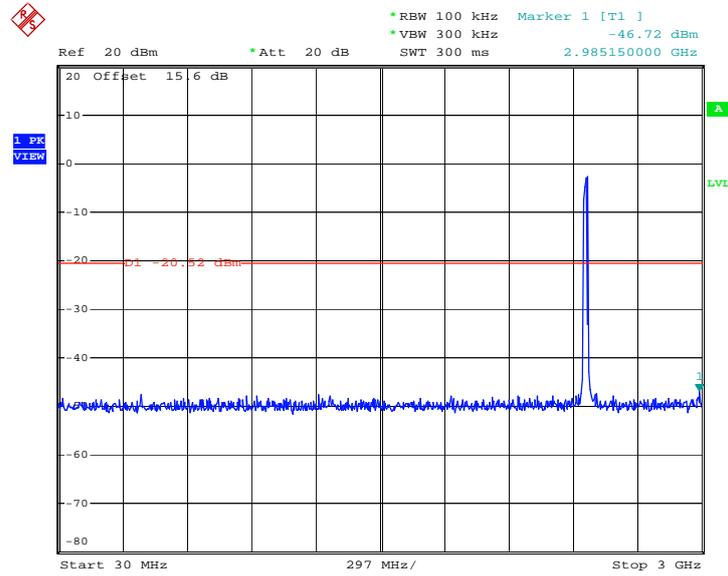


Date: 4.JUL.2013 10:53:49



2.4GHz 802.11n HT20 30 MHz~3 GHz

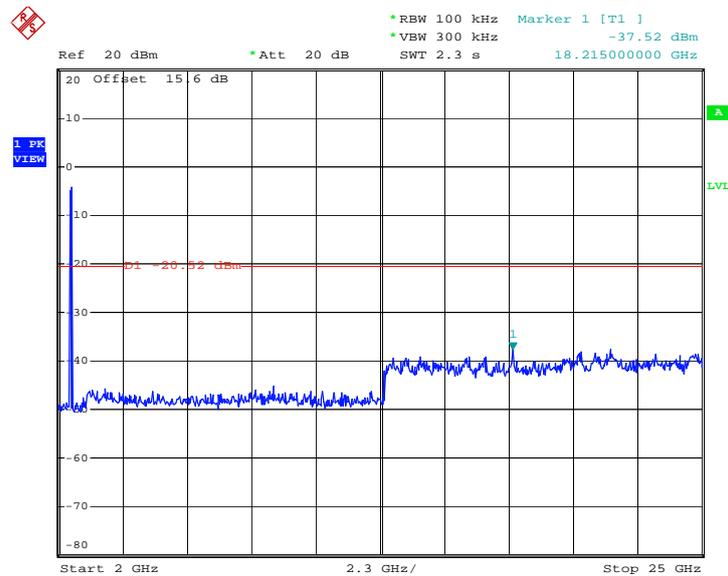
Conducted Spurious Emission Plot on Channel 11



Date: 4.JUL.2013 10:56:34

2.4GHz 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



Date: 4.JUL.2013 10:56:54

### 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

See list of measuring instruments of this test report.

**3.5.3 Test Procedures**

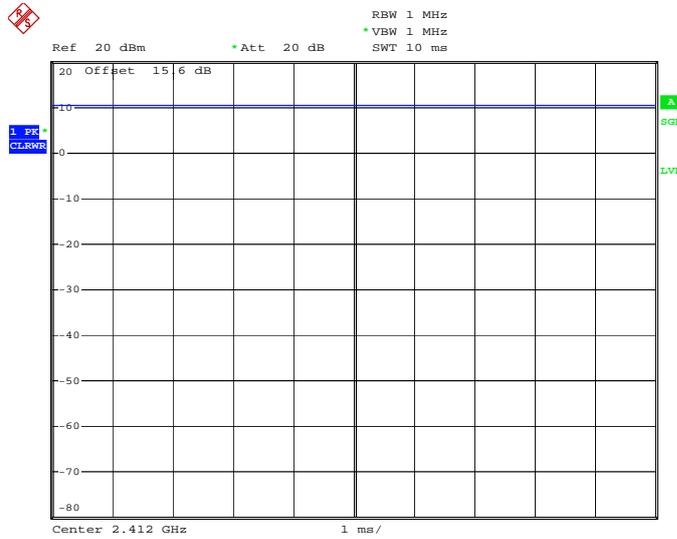
1. The testing follows the guidelines in ANSI C63.10-2009.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter 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.

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b	100.00	-	-	10Hz
802.11g	94.93	2.06	0.49	1KHz
2.4GHz 802.11n HT20	94.49	1.92	0.52	1KHz

**Note:** For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.



802.11b Duty Cycle



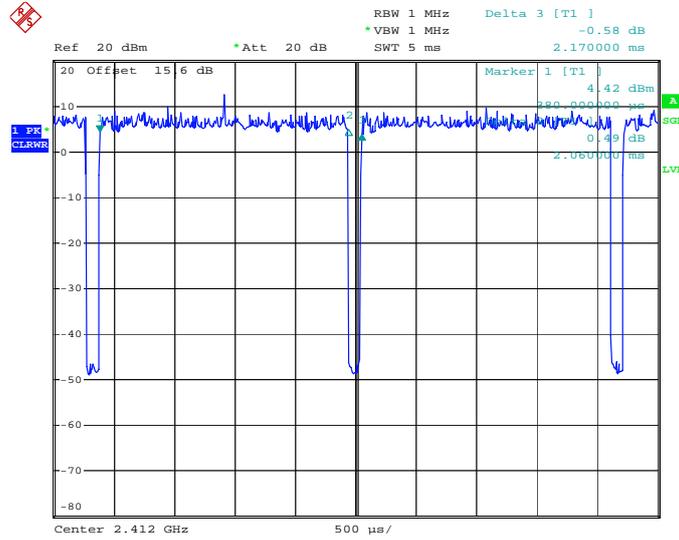
Date: 26.JUN.2013 10:30:11

**Note:**

The total loss is 15.6dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



### 802.11g Duty Cycle

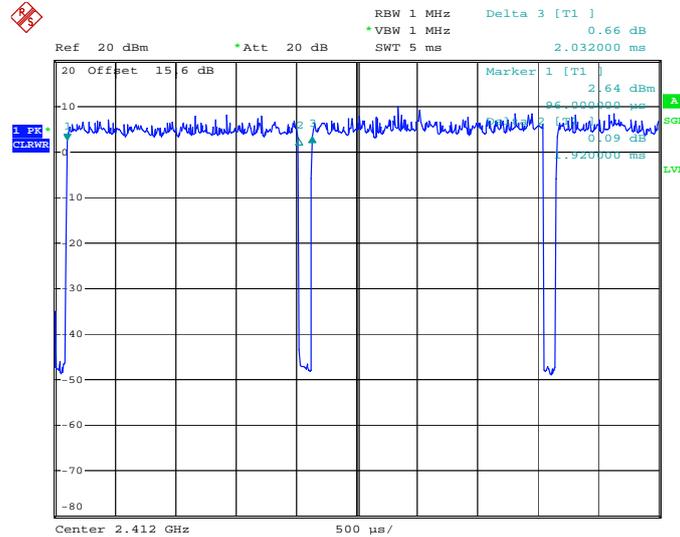


**Note:**

The total loss is 15.6dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11n HT20 Duty Cycle

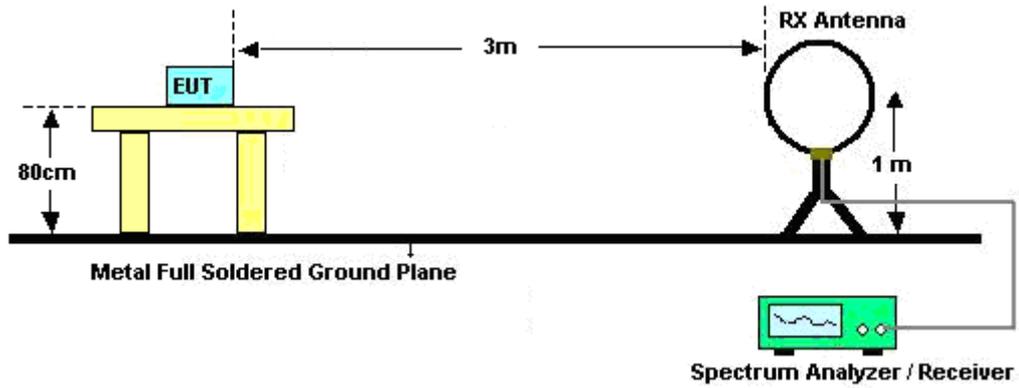


**Note:**

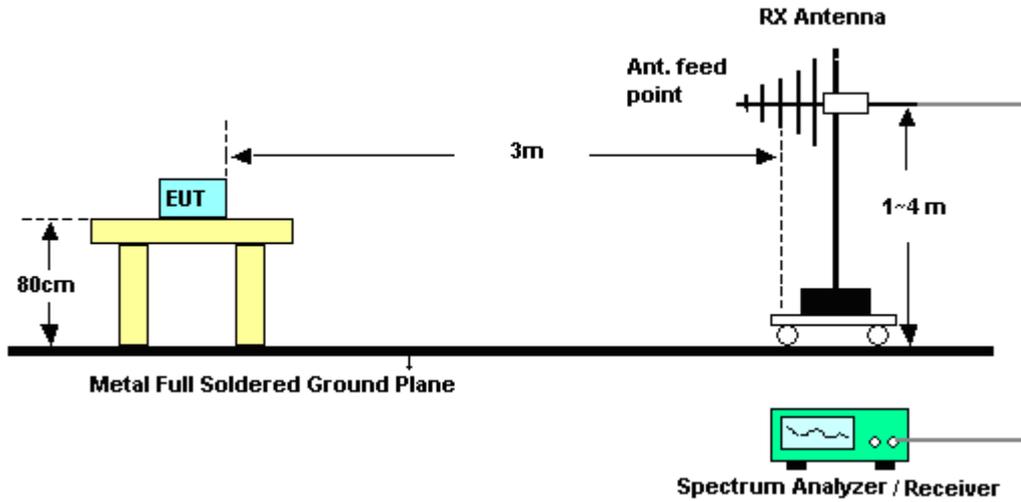
The total loss is 15.6dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.

### 3.5.4 Test Setup

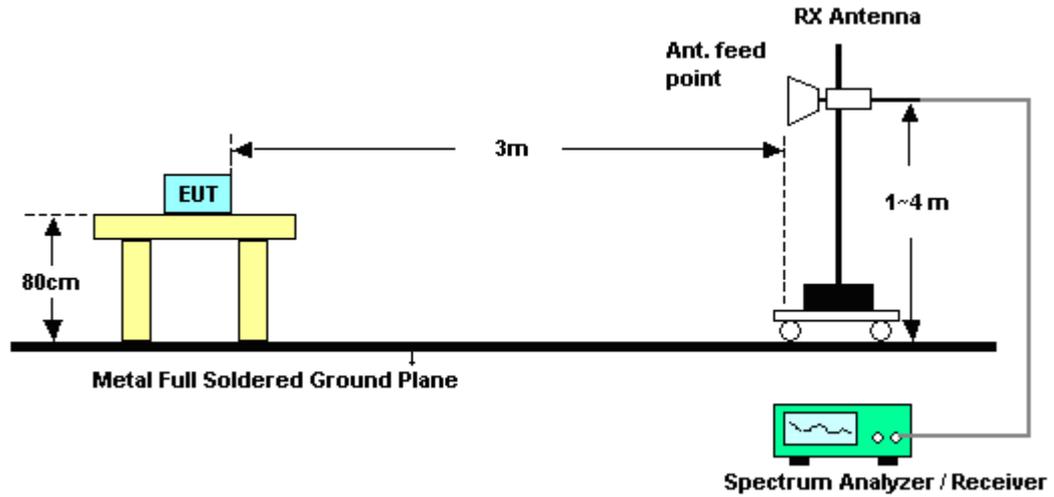
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.5.5 Test Results of Radiated Emissions (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 Band Edges

Test Mode :	802.11b	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	43~44 %
Test Channel :	01	Test Engineer :	Stone Gu

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
2382.72	54.21	-19.79	74	49.99	32.83	2.9	31.51	155	229	Peak
2382.36	43.14	-10.86	54	38.92	32.83	2.9	31.51	155	229	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
2380.74	55.27	-18.73	74	51.05	32.83	2.9	31.51	100	94	Peak
2382.36	43.55	-10.45	54	39.33	32.83	2.9	31.51	100	94	Average

Test Mode :	802.11b	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	43~44 %
Test Channel :	11	Test Engineer :	Stone Gu

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
2497.87	55.7	-18.3	74	51.19	33.05	2.97	31.51	100	219	Peak
2490.31	44.16	-9.84	54	39.66	33.05	2.96	31.51	100	219	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
2490.82	57.69	-16.31	74	53.19	33.05	2.96	31.51	118	290	Peak
2485.63	46.74	-7.26	54	42.28	33.01	2.96	31.51	118	290	Average



Test Mode :	802.11g	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	43~44 %
Test Channel :	01	Test Engineer :	Stone Gu

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
2389.38	58.41	-15.59	74	54.16	32.86	2.9	31.51	103	223	Peak
2390	44.48	-9.52	54	40.22	32.86	2.91	31.51	103	223	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
2390	61.81	-12.19	74	57.55	32.86	2.91	31.51	133	94	Peak
2390	46.11	-7.89	54	41.85	32.86	2.91	31.51	103	94	Average

Test Mode :	802.11g	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	43~44 %
Test Channel :	11	Test Engineer :	Stone Gu

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
2484.01	63.98	-10.02	74	59.52	33.01	2.96	31.51	116	222	Peak
2483.5	46.66	-7.34	54	42.2	33.01	2.96	31.51	105	200	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	60.62	-13.38	74	56.16	33.01	2.96	31.51	168	155	Peak
2483.62	45.12	-8.88	54	40.66	33.01	2.96	31.51	168	155	Average



Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	43~44 %
Test Channel :	01	Test Engineer :	Stone Gu

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
2389.83	62.34	-11.66	74	58.08	32.86	2.91	31.51	105	205	Peak
2390	46.86	-7.14	54	42.6	32.86	2.91	31.51	108	205	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
2389.11	66.61	-7.39	74	62.36	32.86	2.9	31.51	101	84	Peak
2389.92	48.33	-5.67	54	44.07	32.86	2.91	31.51	101	84	Average

Test Mode :	802.11n HT20	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	43~44 %
Test Channel :	11	Test Engineer :	Stone Gu

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
2483.5	63.91	-10.09	74	59.45	33.01	2.96	31.51	100	207	Peak
2483.59	46.58	-7.42	54	42.12	33.01	2.96	31.51	102	207	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
2483.95	64.63	-9.37	74	60.17	33.01	2.96	31.51	129	82	Peak
2484.1	47.19	-6.81	54	42.73	33.01	2.96	31.51	126	82	Average

3.5.7 Test Result of Radiated Emission (30MHz ~ 10<sup>th</sup> Harmonic)

<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 107.31dBμV/m - 20dB = 87.31 dBμV/m. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
2412	107.31	-	-	103.02	32.89	2.91	31.51	155	229	Peak
2412	102.47	-	-	98.18	32.89	2.91	31.51	155	229	Average
4824	49	-25	74	41.13	35.17	4.23	31.53	100	0	Peak
7236	52.32	-34.99	87.31	41.7	36.18	5.39	30.95	100	0	Peak

<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
2412	108.54	-	-	104.25	32.89	2.91	31.51	100	94	Peak
2412	103.75	-	-	99.46	32.89	2.91	31.51	100	94	Average
4824	49.1	-24.9	74	41.23	35.17	4.23	31.53	200	0	Peak
7236	52.61	-35.93	88.54	41.99	36.18	5.39	30.95	100	0	Peak



<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	108.84	-	-	104.47	32.95	2.93	31.51	136	218	Peak
2437	104.21	-	-	99.84	32.95	2.93	31.51	136	218	Average
4874	50.6	-23.4	74	42.68	35.18	4.26	31.52	100	0	Peak
7312	52.47	-21.53	74	41.75	36.2	5.46	30.94	100	0	Peak

<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	108.91	-	-	104.54	32.95	2.93	31.51	129	326	Peak
2437	104.2	-	-	99.83	32.95	2.93	31.51	129	326	Average
4874	50.18	-23.82	74	42.26	35.18	4.26	31.52	200	0	Peak
7312	52.6	-21.4	74	41.88	36.2	5.46	30.94	100	0	Peak



<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	107.32	-	-	102.91	32.98	2.94	31.51	100	219	Peak
2462	102.98	-	-	98.57	32.98	2.94	31.51	100	219	Average
4924	50.95	-23.05	74	42.99	35.19	4.28	31.51	100	0	Peak
7386	53.97	-20.03	74	43.15	36.24	5.51	30.93	100	0	Peak

<b>Test Mode :</b>	802.11b	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	109.98	-	-	105.57	32.98	2.94	31.51	118	290	Peak
2462	105.12	-	-	100.71	32.98	2.94	31.51	118	290	Average
4924	50.8	-23.2	74	42.84	35.19	4.28	31.51	200	0	Peak
7386	52.43	-21.57	74	41.61	36.24	5.51	30.93	100	0	Peak



<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
2412	106.47	-	-	102.18	32.89	2.91	31.51	103	223	Peak
2412	95.22	-	-	90.93	32.89	2.91	31.51	103	223	Average
4824	50.07	-23.93	74	42.2	35.17	4.23	31.53	100	0	Peak
7236	52.77	-33.7	86.47	42.15	36.18	5.39	30.95	100	0	Peak

<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
2412	107.82	-	-	103.53	32.89	2.91	31.51	133	94	Peak
2412	97.23	-	-	92.94	32.89	2.91	31.51	133	94	Average
4824	50.16	-23.84	74	42.29	35.17	4.23	31.53	200	0	Peak
7236	52.97	-34.85	87.82	42.35	36.18	5.39	30.95	100	0	Peak



<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	107.18	-	-	102.81	32.95	2.93	31.51	100	214	Peak
2437	95.87	-	-	91.5	32.95	2.93	31.51	100	214	Average
4874	50.41	-23.59	74	42.49	35.18	4.26	31.52	200	0	Peak
7312	53.58	-20.42	74	42.86	36.2	5.46	30.94	100	0	Peak

<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	108.6	-	-	104.23	32.95	2.93	31.51	100	84	Peak
2437	97.8	-	-	93.43	32.95	2.93	31.51	100	84	Average
4874	50.33	-23.67	74	42.41	35.18	4.26	31.52	100	0	Peak
7312	53.23	-20.77	74	42.51	36.2	5.46	30.94	100	0	Peak



<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	106.51	-	-	102.1	32.98	2.94	31.51	188	233	Peak
2462	94.8	-	-	90.39	32.98	2.94	31.51	188	233	Average
4924	50.03	-23.97	74	42.07	35.19	4.28	31.51	200	0	Peak
7386	53.87	-20.13	74	43.05	36.24	5.51	30.93	100	0	Peak

<b>Test Mode :</b>	802.11g	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	105.97	-	-	101.56	32.98	2.94	31.51	200	155	Peak
2462	93.11	-	-	88.7	32.98	2.94	31.51	200	155	Average
4924	50.97	-23.03	74	43.01	35.19	4.28	31.51	100	0	Peak
7386	52.83	-21.17	74	42.01	36.24	5.51	30.93	100	0	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
113.42	26.66	-16.84	43.5	47.86	11.8	0.61	33.61	-	-	Peak
159.01	33.35	-10.15	43.5	56.55	9.64	0.74	33.58	100	0	Peak
245.34	32.85	-13.15	46	53.6	11.79	0.91	33.45	-	-	Peak
315.18	31.72	-14.28	46	50.69	13.38	1.02	33.37	-	-	Peak
397.63	20.86	-25.14	46	37.06	15.96	1.15	33.31	-	-	Peak
939.86	28.42	-17.58	46	38.42	20.69	1.75	32.44	-	-	Peak
2412	106.5	-	-	102.21	32.89	2.91	31.51	105	205	Peak
2412	95.36	-	-	91.07	32.89	2.91	31.51	105	205	Average
4824	50.5	-23.5	74	42.63	35.17	4.23	31.53	100	0	Peak
7236	53.42	-33.08	86.5	42.8	36.18	5.39	30.95	200	0	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

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
78.5	23.13	-16.87	40	49.84	6.34	0.55	33.6	200	0	Peak
113.42	25.66	-17.84	43.5	46.86	11.8	0.61	33.61	-	-	Peak
248.25	23.68	-22.32	46	44.28	11.92	0.92	33.44	-	-	Peak
323.91	22.6	-23.4	46	41.22	13.71	1.04	33.37	-	-	Peak
515	21.13	-24.87	46	35.37	17.53	1.33	33.1	-	-	Peak
939.86	26.6	-19.4	46	36.6	20.69	1.75	32.44	-	-	Peak
2412	108.29	-	-	104	32.89	2.91	31.51	100	84	Peak
2412	97.27	-	-	92.98	32.89	2.91	31.51	100	84	Average
4824	50.4	-23.6	74	42.53	35.17	4.23	31.53	100	0	Peak
7236	54.01	-34.28	88.29	43.39	36.18	5.39	30.95	100	0	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	104.57	-	-	100.2	32.95	2.93	31.51	100	260	Peak
2437	92.86	-	-	88.49	32.95	2.93	31.51	100	260	Average
4874	50.99	-23.01	74	43.07	35.18	4.26	31.52	100	0	Peak
7312	52.86	-21.14	74	42.14	36.2	5.46	30.94	100	0	Peak

<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2437	107.01	-	-	102.64	32.95	2.93	31.51	100	75	Peak
2437	95.15	-	-	90.78	32.95	2.93	31.51	100	75	Average
4874	50.54	-23.46	74	42.62	35.18	4.26	31.52	100	0	Peak
7312	52.45	-21.55	74	41.73	36.2	5.46	30.94	100	0	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	107.34	-	-	102.93	32.98	2.94	31.51	102	207	Peak
2462	95.92	-	-	91.51	32.98	2.94	31.51	102	207	Average
4924	50.05	-23.95	74	42.09	35.19	4.28	31.51	200	0	Peak
7386	52.41	-21.59	74	41.59	36.24	5.51	30.93	100	0	Peak

<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	23~24°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	43~44 %
<b>Test Engineer :</b>	Stone Gu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

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
2462	107.31	-	-	102.9	32.98	2.94	31.51	129	82	Peak
2462	96.11	-	-	91.7	32.98	2.94	31.51	129	82	Average
4924	50.18	-23.82	74	42.22	35.19	4.28	31.51	100	0	Peak
7386	52.48	-21.52	74	41.66	36.24	5.51	30.93	100	0	Peak

### 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 $\mu$ 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.

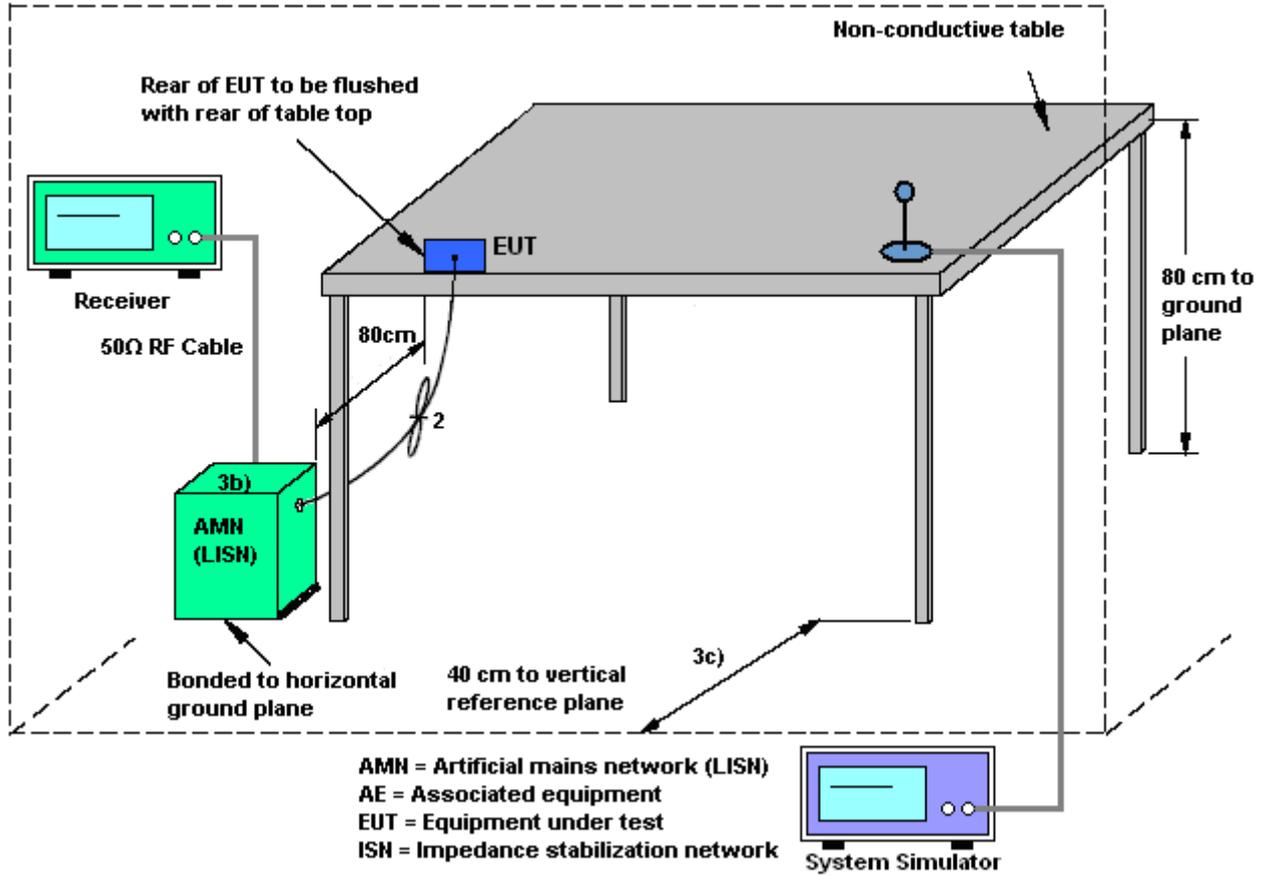
#### 3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.6.3 Test Procedures

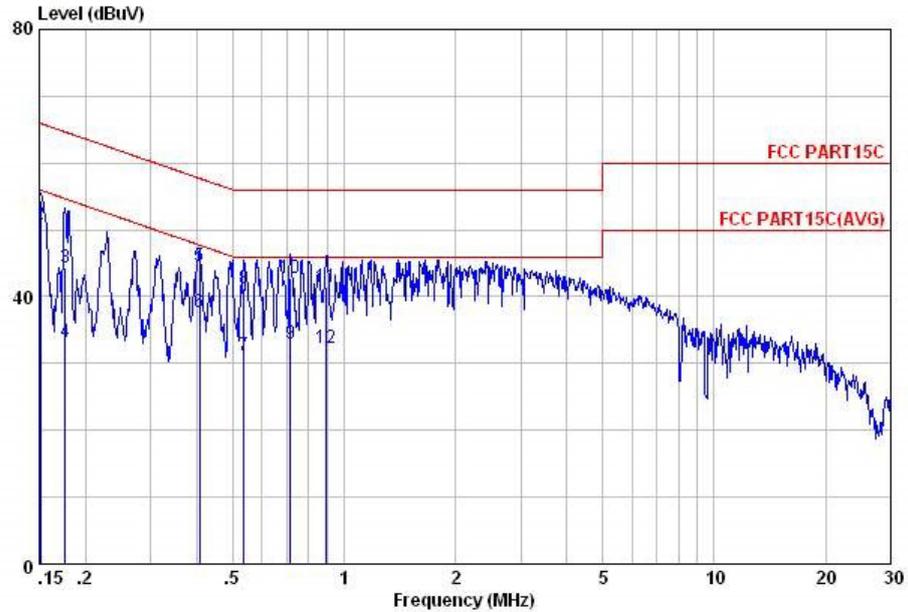
1. The testing follows the guidelines in ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (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°C
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Bluetooth Link + WLAN Link + USB Cable (Charging from Adapter) + Earphone		



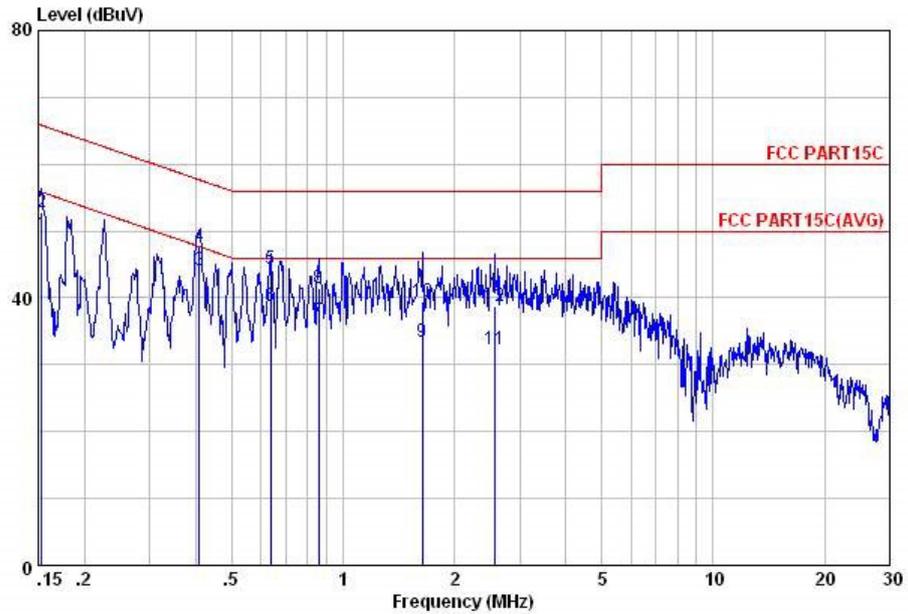
Site : C001-KS  
 Condition: FCC PART15C LISN-L20130306 LINE

mode : Mode 1

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.15	54.30	-11.66	65.96	41.64	1.94	10.72	QP
2	0.15	50.70	-5.26	55.96	38.04	1.94	10.72	Average
3	0.18	44.31	-20.37	64.68	32.28	1.40	10.63	QP
4	0.18	33.11	-21.57	54.68	21.08	1.40	10.63	Average
5	0.41	44.57	-13.16	57.73	33.98	0.31	10.28	QP
6	0.41	37.67	-10.06	47.73	27.08	0.31	10.28	Average
7	0.53	31.24	-14.76	46.00	20.78	0.20	10.26	Average
8	0.53	41.24	-14.76	56.00	30.78	0.20	10.26	QP
9	0.72	32.90	-13.10	46.00	22.49	0.20	10.21	Average
10	0.72	42.70	-13.30	56.00	32.29	0.20	10.21	QP
11	0.89	41.51	-14.49	56.00	31.20	0.12	10.19	QP
12	0.89	32.31	-13.69	46.00	22.00	0.12	10.19	Average



Test Mode :	Mode 1	Temperature :	19~20°C
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Bluetooth Link + WLAN Link + USB Cable (Charging from Adapter) + Earphone		



Site : C001-KS  
 Condition: FCC PART15C LISN-N20130306 NEUTRAL

mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	49.56	-6.26	55.82	37.01	1.85	10.70	Average
2	0.15	52.86	-12.96	65.82	40.31	1.85	10.70	QP
3	0.41	44.07	-3.61	47.68	33.40	0.39	10.28	Average
4	0.41	47.67	-10.01	57.68	37.00	0.39	10.28	QP
5	0.64	44.45	-11.55	56.00	34.00	0.22	10.23	QP
6	0.64	38.75	-7.25	46.00	28.30	0.22	10.23	Average
7	0.86	36.53	-9.47	46.00	26.20	0.14	10.19	Average
8	0.86	41.43	-14.57	56.00	31.10	0.14	10.19	QP
9	1.64	33.49	-12.51	46.00	23.20	0.10	10.19	Average
10	1.64	39.49	-16.51	56.00	29.20	0.10	10.19	QP
11	2.57	32.22	-13.78	46.00	21.90	0.12	10.20	Average
12	2.57	38.82	-17.18	56.00	28.50	0.12	10.20	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. 29, 2012	Jul. 04, 2013~ Jul. 07, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 22, 2012	Jul. 04, 2013~ Jul. 07, 2013	Aug. 21, 2013	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 22, 2012	Jul. 04, 2013~ Jul. 07, 2013	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 29, 2012	Jul. 04, 2013~ Jul. 07, 2013	Dec. 28, 2013	Conducted (TH01-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	May 23, 2013	Jul. 12, 2013	May 22, 2014	Conduction (CO01-KS)
LISN (for auxiliary equipment)	MessTec	AN3016	60103	9kHz~30MHz	Dec. 29, 2012	Jul. 12, 2013	Dec. 28, 2013	Conduction (CO01-KS)
LISN	MessTec	AN3016	60105	9kHz~30MHz	Dec. 29, 2012	Jul. 12, 2013	Dec. 28, 2013	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	N/A	Nov. 15, 2012	Jul. 12, 2013	Nov. 14, 2013	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Jun. 26, 2013	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	100400	9kHz~30GHz	May 23, 2013	Jun. 26, 2013	May 22, 2014	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 07, 2012	Jun. 26, 2013	Dec. 06, 2013	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Dec. 07, 2012	Jun. 26, 2013	Dec. 06, 2013	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	May 23, 2013	Jun. 26, 2013	May 22, 2014	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 29, 2012	Jun. 26, 2013	Dec. 28, 2013	Radiation (03CH01-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	N/A	Jun. 26, 2013	N/A	Radiation (03CH01-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	N/A	Jun. 26, 2013	N/A	Radiation (03CH01-KS)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.26
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### Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.54
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### Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.72
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## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP362404 as below.