FCC RF Test Report

APPLICANT	:	ZTE CORPORATION
EQUIPMENT	:	cdma2000 wireless data terminal
BRAND NAME	:	ZTE
MODEL NAME	:	AC3633
FCC ID	:	Q78-AC3633
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Nov. 16, 2012 and completely tested on Dec. 06, 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

Jones Tsai / Manager

Testing Laboratory 1190

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR2N1603	Rev. 01	Initial issue of report	Dec. 14, 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 and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 2.2 dB at 2390.000 MHz
3.6	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 10.73 dB at 0.160 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, P.R.China

1.2 Manufacturer

ZTE CORPORATION

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

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	cdma2000 wireless data terminal
Brand Name	ZTE
Model Name	AC3633
FCC ID	Q78-AC3633
EUT supports Radios application	CDMA/EV-DO/WLAN 11bgn
HW Version	AC3633_B
SW Version	YR9AD004
EUT Stage	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	
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 : 15.86 dBm (0.0385 W) 802.11g : 21.85 dBm (0.1531 W) 802.11n HT20 : 21.65 dBm (0.1462 W)
Antenna Type	FPC Antenna with gain -1.00 dBi
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.5 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

1.6 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 v02
- ANSI C63.4-2003 and ANSI C63.10-2009
- IC RSS-210 Issue 8
- IC RSS-Gen Issue 3
- NOTICE 2012-DRS0126

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.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radio communication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

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).

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 and antenna configurations as following table and the highest power data rates were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

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	15.12	15.64	15.78	15.85
CH 06	2437 MHz	15.02	15.45	15.41	15.57
CH 11	2462 MHz	**15.86**	15.36	15.72	15.81

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	21.54	21.71	20.45	21.27	21.14	21.05	20.89	21.16
CH 06	2437 MHz	21.48	21.33	20.15	21.12	20.81	20.85	20.62	20.82
CH 11	2462 MHz	**21.85**	21.69	20.47	21.29	21.15	21.28	21.25	21.15

Channel	Frequency	2.4GHz 802.11n HT20 RF Power (dBm)							
		OFDM Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 01	2412 MHz	21.06	20.92	20.35	20.46	21.13	20.88	21.26	21.15
CH 06	2437 MHz	21.13	21.52	20.42	20.33	20.89	20.43	20.89	21.02
CH 11	2462 MHz	**21.65**	21.61	20.56	20.78	21.01	20.89	21.39	21.23

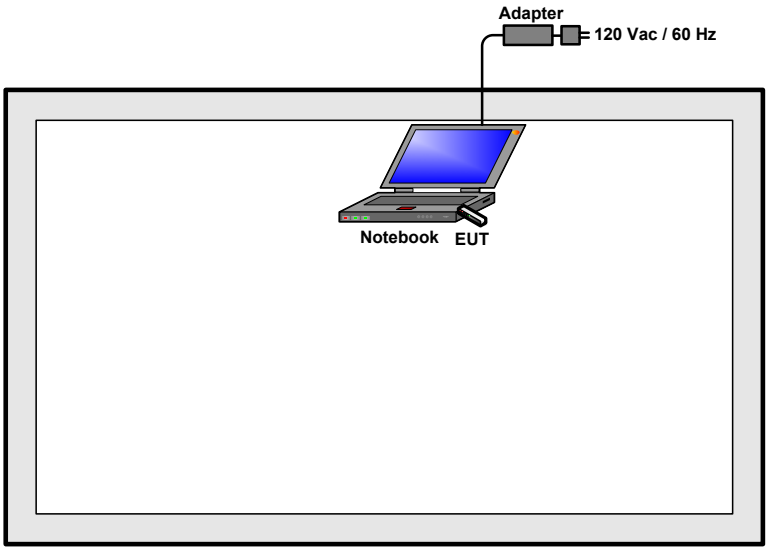
2.3 Test Mode

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 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	Mode 1 ： CDMA2000 BC0 Idle + WLAN Link + USB Charging from Notebook			

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



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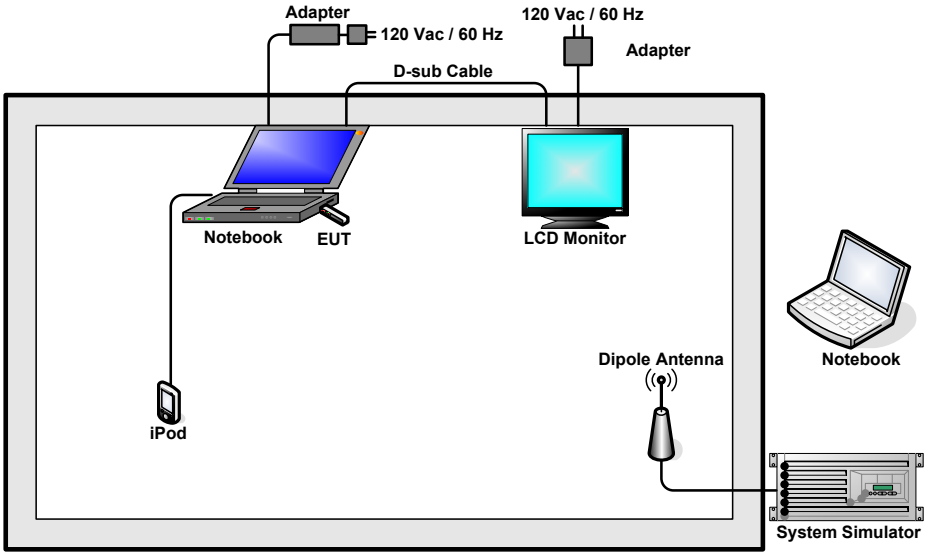


2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
1.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
	Monitor	Dell	E1910Hc	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
	Notebook	DELL	P08S	QDS-BRCM1030	N/A	AC I/P: Unshielded, 0.9 m DC O/P: Shielded, 1.8 m
2.	Notebook	Dell	PP42L	N/A	N/A	AC I/P: Unshielded, 0.9 m DC O/P: Shielded, 1.8 m
3.	Notebook	DELL	VOSTRO1450	PPD-AR5B195	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2.6 RF Utility

For WLAN function, programmed RF utility, execute “SSCOM3.2” for 802.11b and 802.11g, and “AT Command” for 802.11n HT20, installed in the notebook make the EUT provides functions like channel selection and power level for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and 10dB attenuator 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 10dB attenuator factor.
Offset = RF cable loss + attenuator factor.
Following table shows an offset computation example with cable loss 5.6 dB.

Example :
Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 5.6 + 10 = 15.6 (dB)

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.

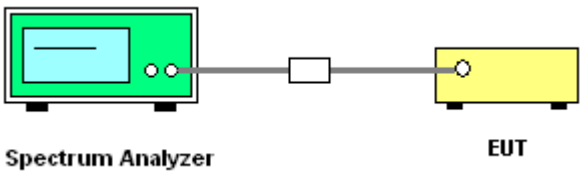
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v02.
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. Measure and record the results in the test report.

3.1.4 Test Setup

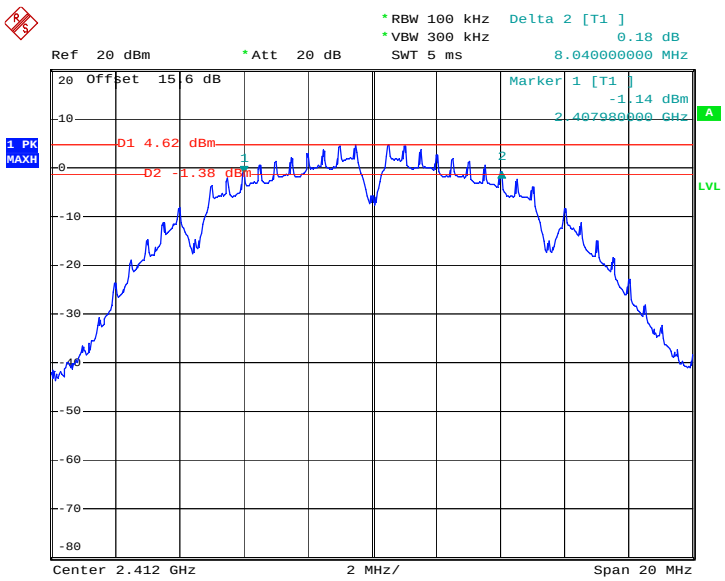


3.1.5 Test Result of 6dB Bandwidth

Test Mode :	802.11b	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	8.04	0.5	Pass
06	2437	8.00	0.5	Pass
11	2462	8.04	0.5	Pass

6 dB Bandwidth Plot on 802.11b Channel 01



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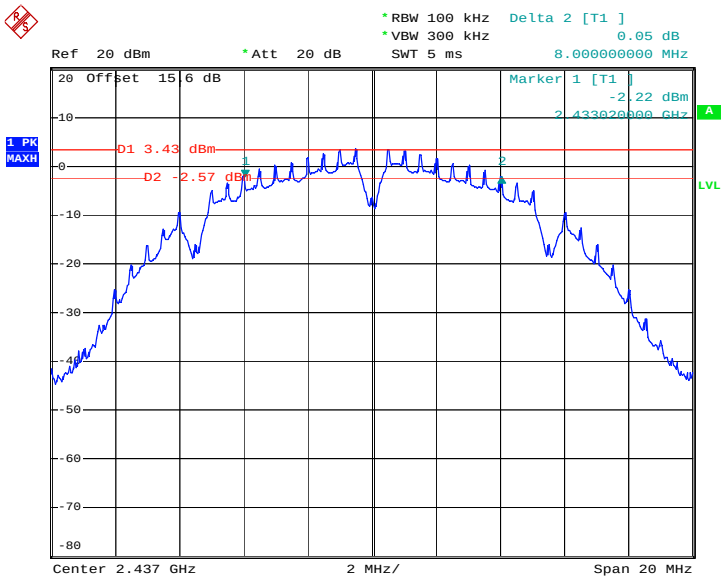
6 dB Bandwidth Plot on 802.11b Channel 06



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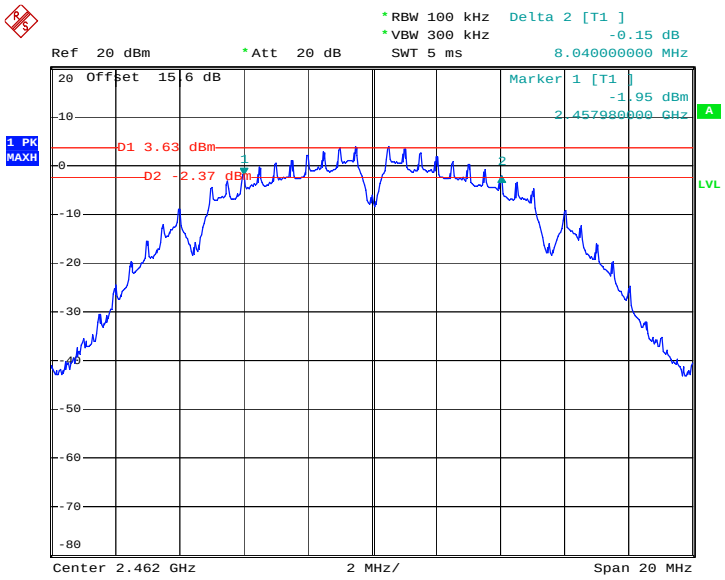
6 dB Bandwidth Plot on 802.11b Channel 11



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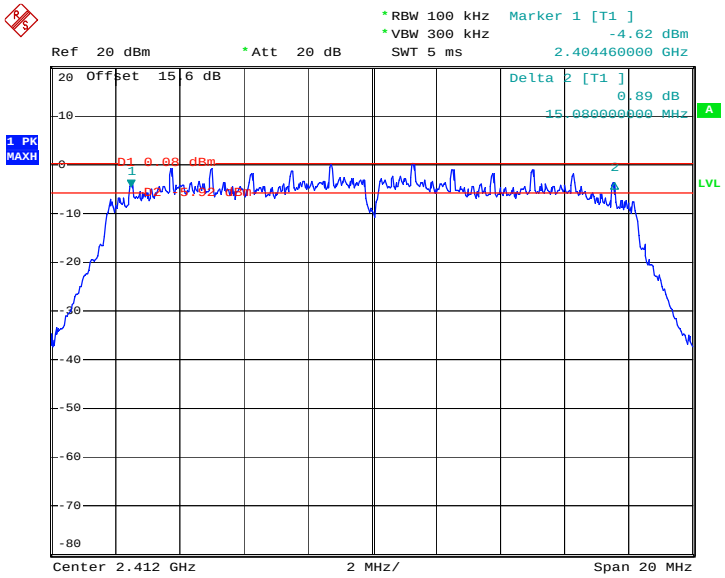
Test Mode :	802.11g	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

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

6 dB Bandwidth Plot on 802.11g Channel 01



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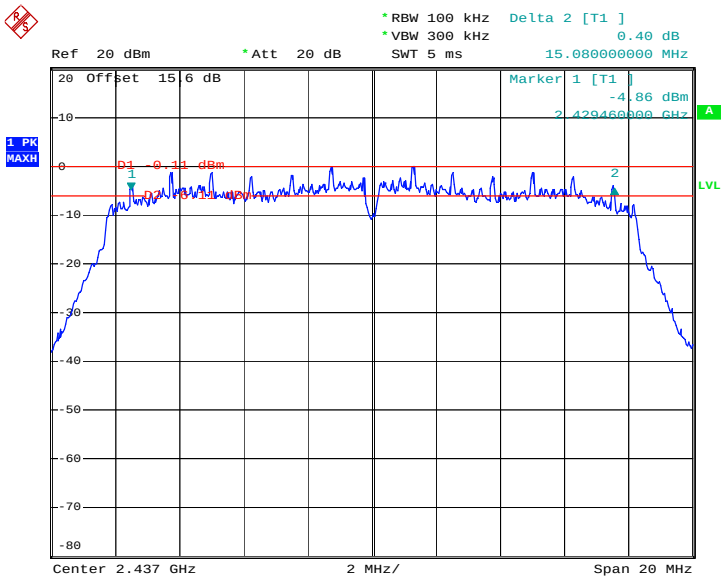
6 dB Bandwidth Plot on 802.11g Channel 06



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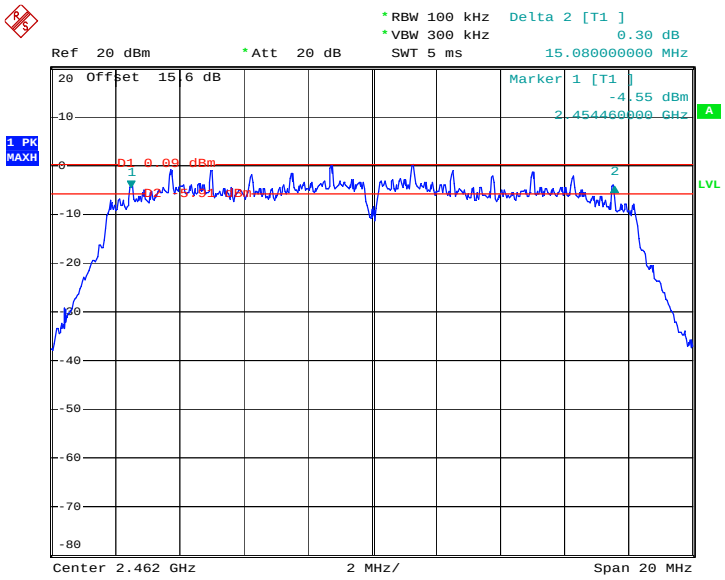
6 dB Bandwidth Plot on 802.11g Channel 11

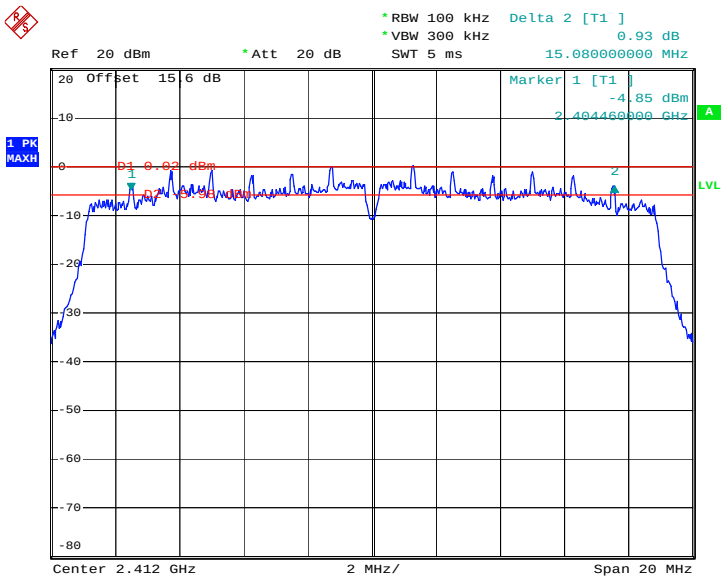


Date: 3.DEC.2012 11:52:33

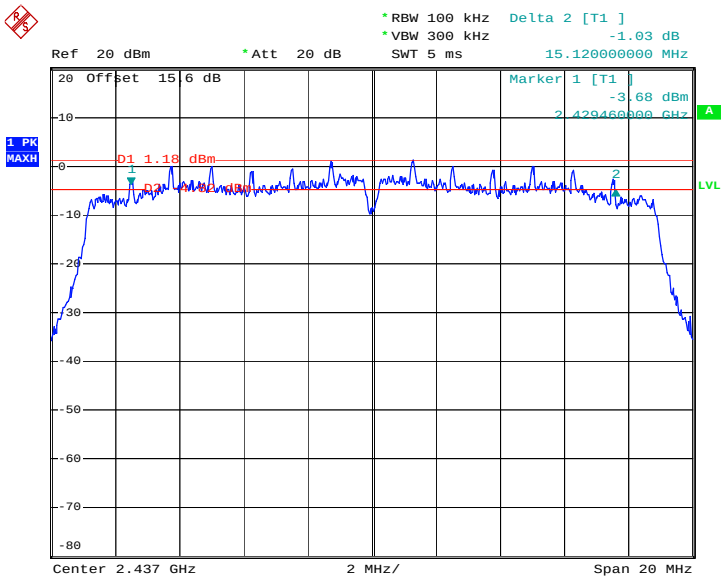
Test Mode :	802.11n HT20	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 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

6 dB Bandwidth Plot on 802.11n HT20 Channel 01



6 dB Bandwidth Plot on 802.11n HT20 Channel 06



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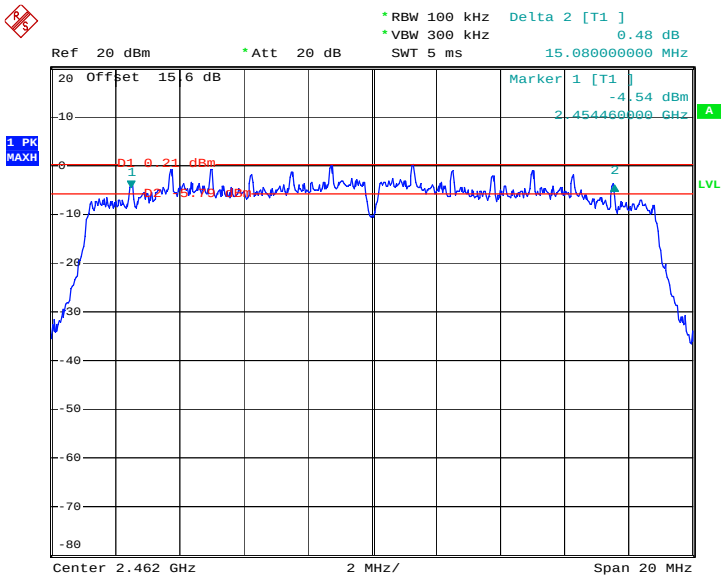
6 dB Bandwidth Plot on 802.11n HT20 Channel 11



Date: 3.DEC.2012 13:32:08

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.

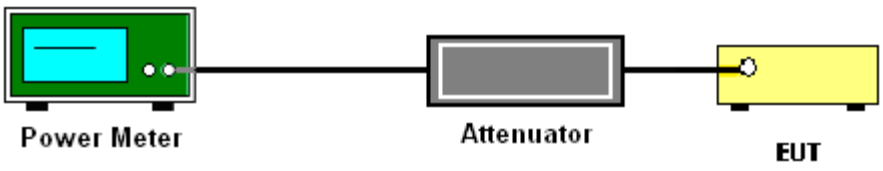
3.2.2 Measuring Instruments

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 v02.
2. The RF output of EUT was connected to the power meter by a low loss cable
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 :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	15.12	30	Pass
06	2437	15.02	30	Pass
11	2462	15.86	30	Pass

Test Mode :	802.11g	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	21.54	30	Pass
06	2437	21.48	30	Pass
11	2462	21.85	30	Pass

Test Mode :	802.11n HT20	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	21.06	30	Pass
06	2437	21.13	30	Pass
11	2462	21.65	30	Pass

3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	20~21
Test Engineer :	Cloud Peng	Relative Humidity :	40~41
Duty Cycle:	99.08%	Duty Factor:	0.04dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	12.22
06	2437	11.96
11	2462	12.47

Test Mode :	802.11g	Temperature :	20~21
Test Engineer :	Cloud Peng	Relative Humidity :	40~41
Duty Cycle:	92.86%	Duty Factor:	0.32dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	11.47
06	2437	11.37
11	2462	11.63

Test Mode :	802.11n HT20	Temperature :	20~21
Test Engineer :	Cloud Peng	Relative Humidity :	40~41
Duty Cycle:	92.36%	Duty Factor:	0.35dB

Channel	Frequency (MHz)	802.11n HT20 Average Output Power (dBm)
01	2412	11.07
06	2437	11.08
11	2462	11.51

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.

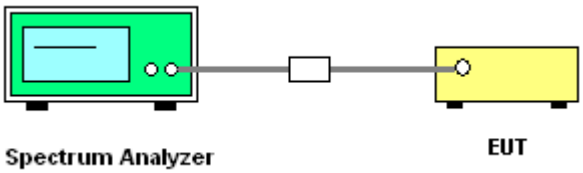
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 9.1 Option 1 of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v02
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.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Test Mode :	802.11b	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	3.08	-13.96	8	Pass
06	2437	3.35	-12.94	8	Pass
11	2462	3.44	-12.44	8	Pass

Test Mode :	802.11g	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	-0.05	-16.45	8	Pass
06	2437	-0.06	-16.57	8	Pass
11	2462	-0.18	-15.74	8	Pass

Test Mode :	802.11n HT20	Temperature :	20~21℃
Test Engineer :	Cloud Peng	Relative Humidity :	40~41%

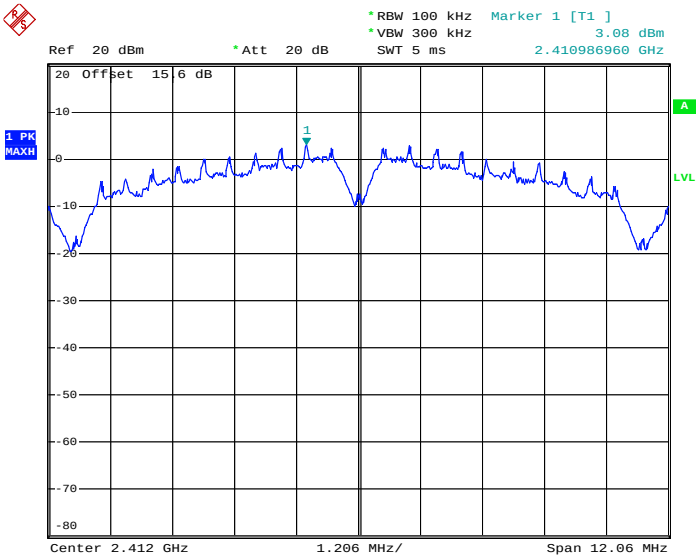
Channel	Frequency (MHz)	802. 11n HT20 Power Density		Max. Limits (dBm)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	-0.15	-16.26	8	Pass
06	2437	0.28	-14.71	8	Pass
11	2462	-0.06	-15.31	8	Pass

Note:

1. *Measured power density (dBm) has offset with cable loss.*
2. *Measured power density (dBm)/ 100KHz is for 20dBc reference only*

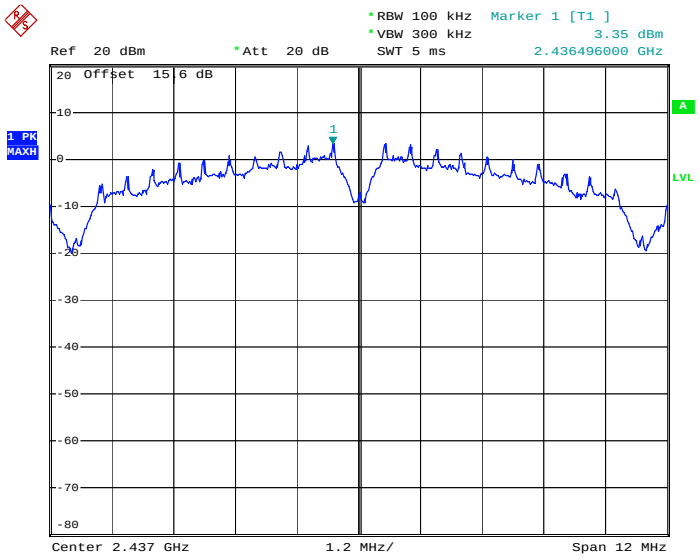
3.3.6 Test Result of Power Spectral Density Plots (100KHz)

PSD 100KHz Plot on 802.11b Channel 01



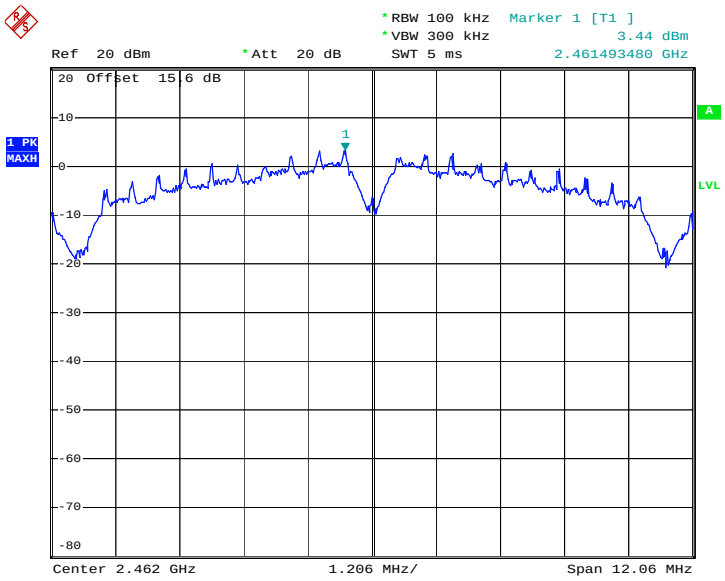
Date: 3.DEC.2012 11:30:06

PSD 100KHz Plot on 802.11b Channel 06



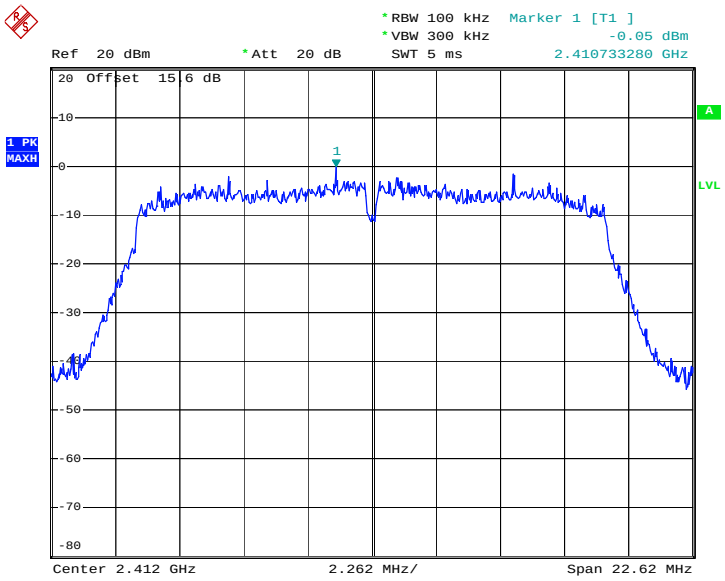
Date: 3.DEC.2012 11:35:00

PSD 100KHz Plot on 802.11b Channel 11



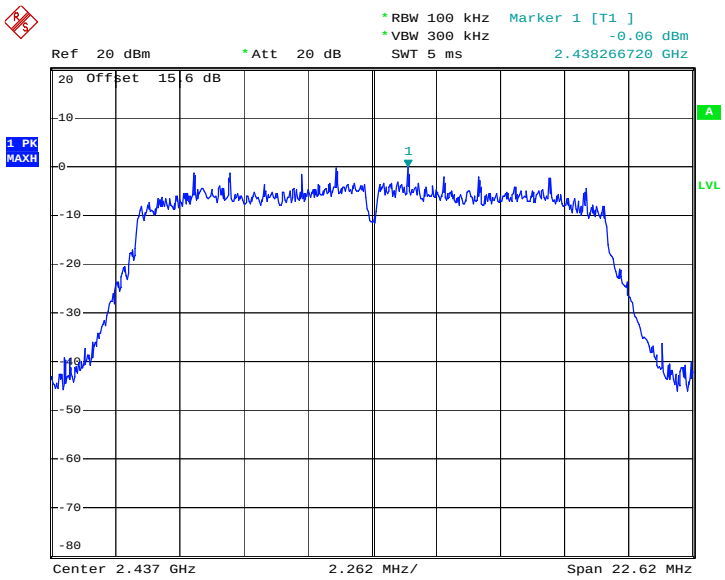
Date: 3.DEC.2012 11:41:16

PSD 100KHz Plot on 802.11g Channel 01



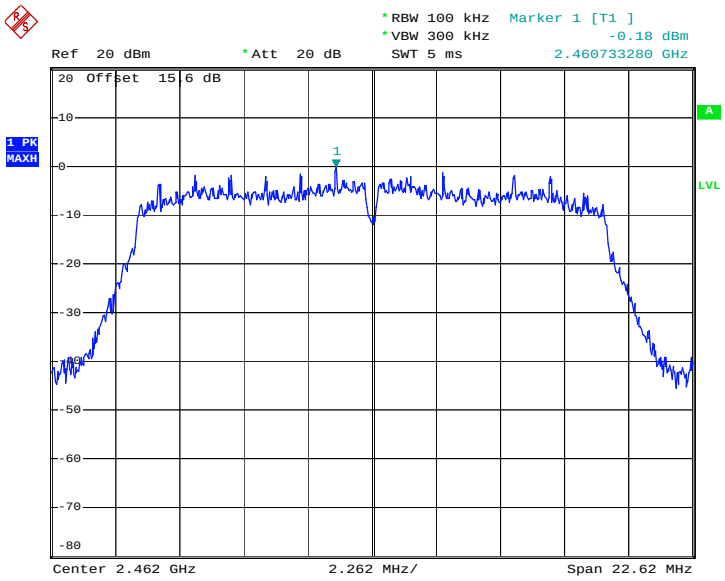
Date: 3.DEC.2012 11:47:34

PSD 100KHz Plot on 802.11g Channel 06



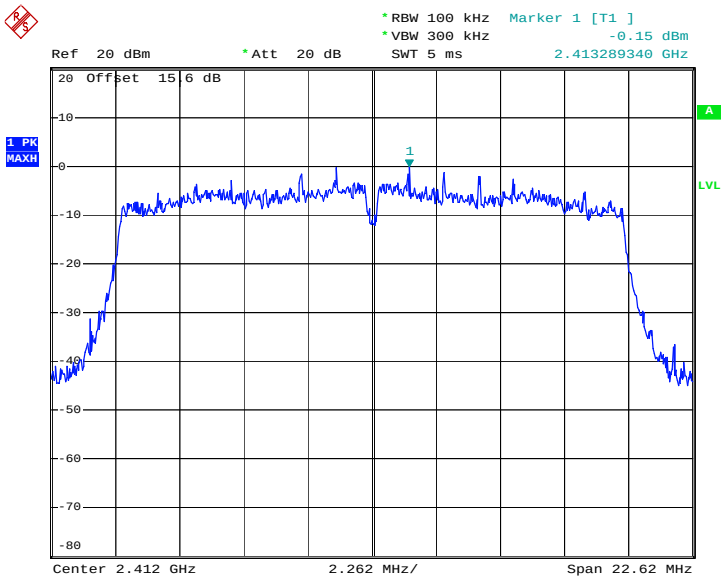
Date: 3.DEC.2012 11:50:30

PSD 100KHz Plot on 802.11g Channel 11



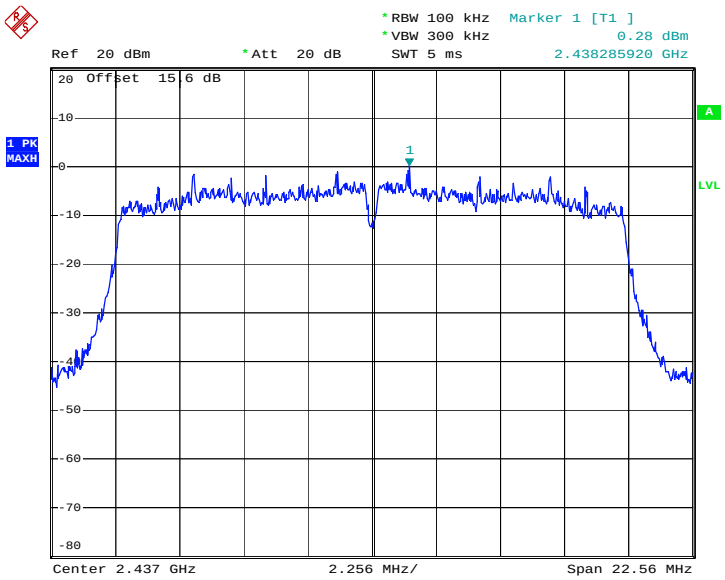
Date: 3.DEC.2012 11:53:02

PSD 100KHz Plot on 2.4G 802.11n HT20 Channel 01



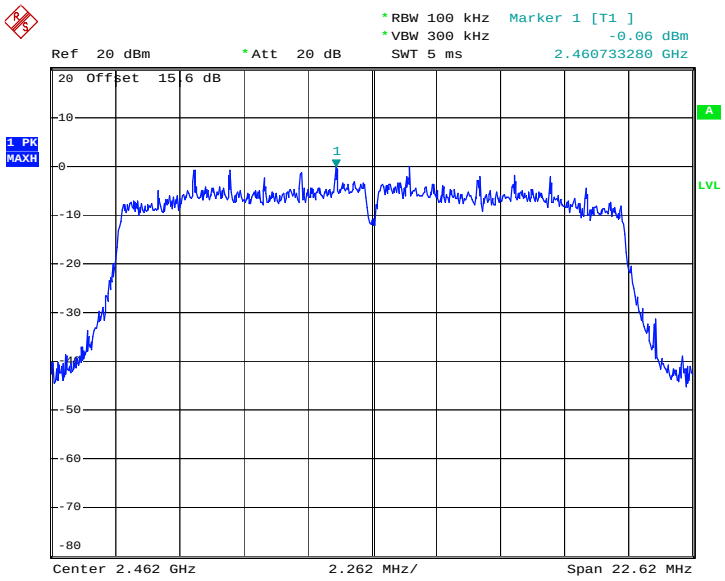
Date: 3.DEC.2012 13:25:06

PSD 100KHz Plot on 2.4G 802.11n HT20 Channel 06



Date: 3.DEC.2012 13:28:53

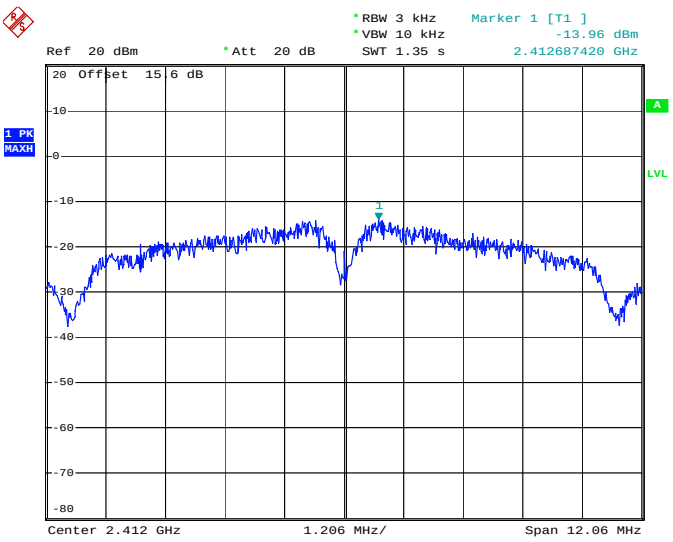
PSD 100KHz Plot on 2.4G 802.11n HT20 Channel 11



Date: 3.DEC.2012 13:32:45

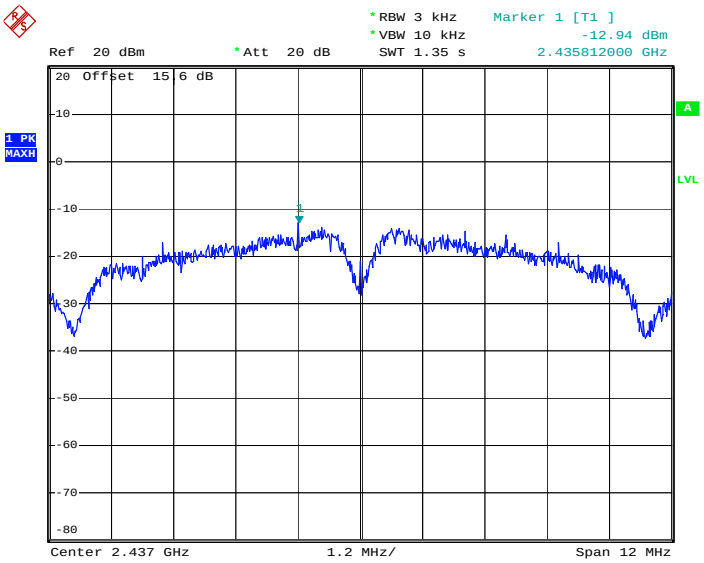
3.3.7 Test Result of Power Spectral Density Plots (3KHz)

PSD 3KHz Plot on 802.11b Channel 01



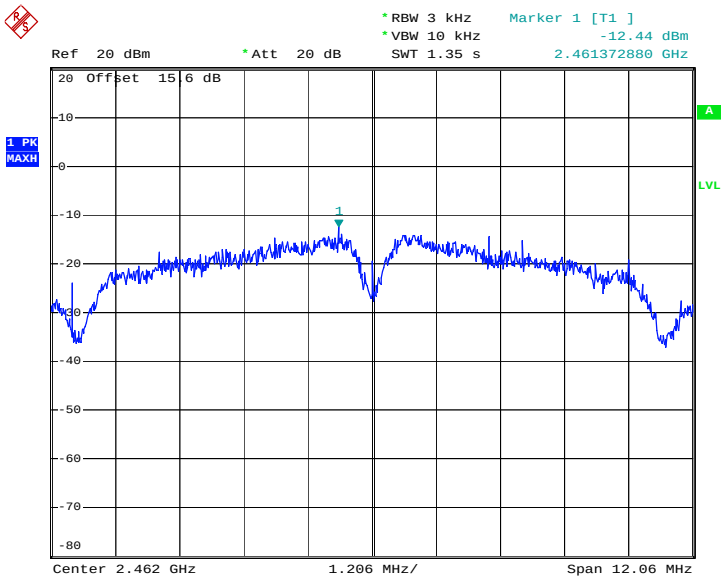
Date: 3.DEC.2012 11:29:54

PSD 3KHz Plot on 802.11b Channel 06



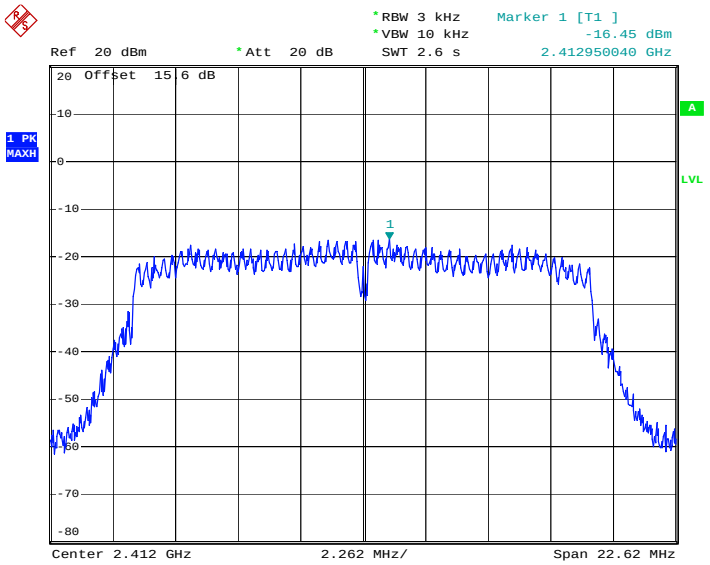
Date: 3.DEC.2012 11:34:52

PSD 3KHz Plot on 802.11b Channel 11



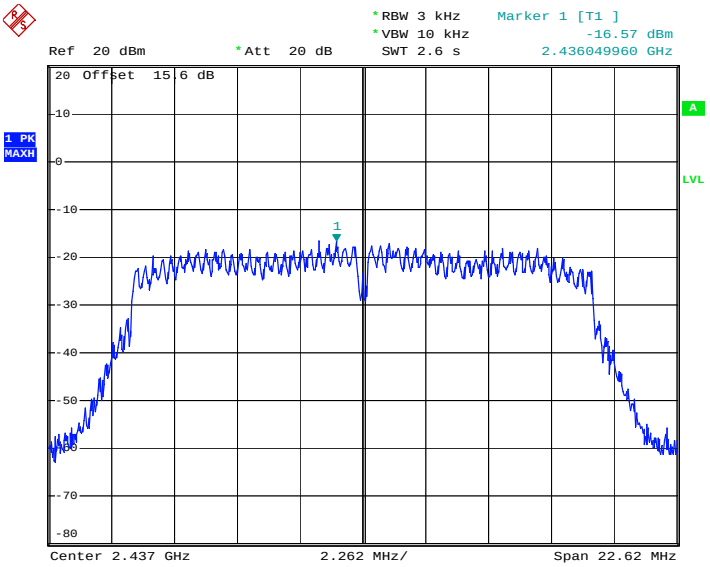
Date: 3.DEC.2012 11:41:07

PSD 3KHz Plot on 802.11g Channel 01



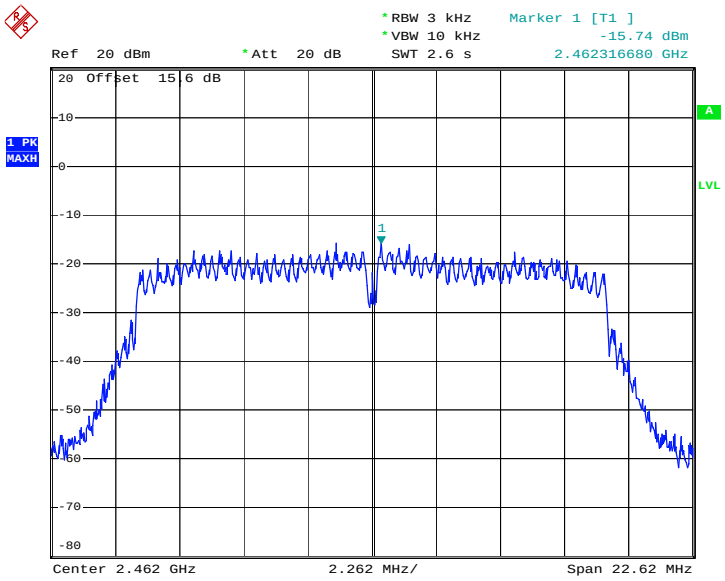
Date: 3.DEC.2012 11:46:45

PSD 3KHz Plot on 802.11g Channel 06

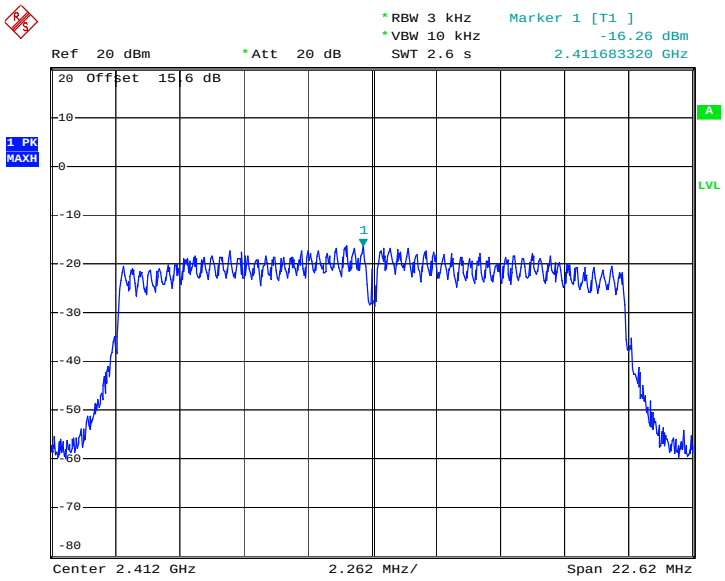


Date: 3.DEC.2012 11:50:16

PSD 3KHz Plot on 802.11g Channel 11

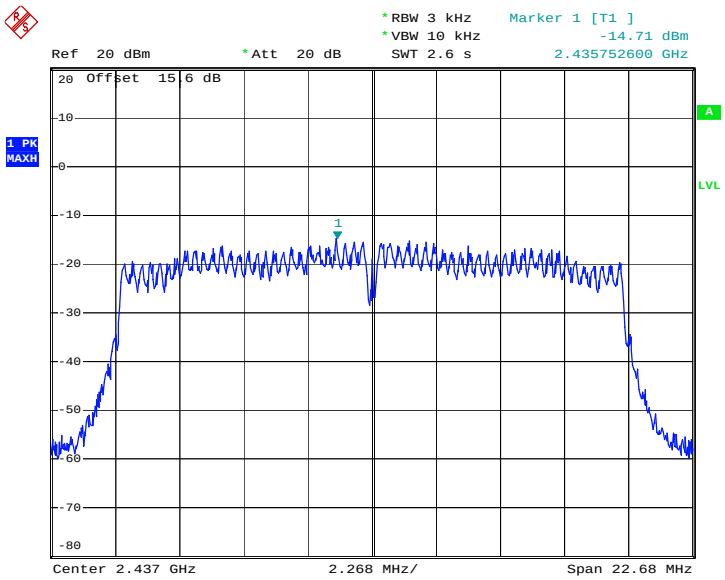


PSD 3KHz Plot on 2.4G 802.11n HT20 Channel 01



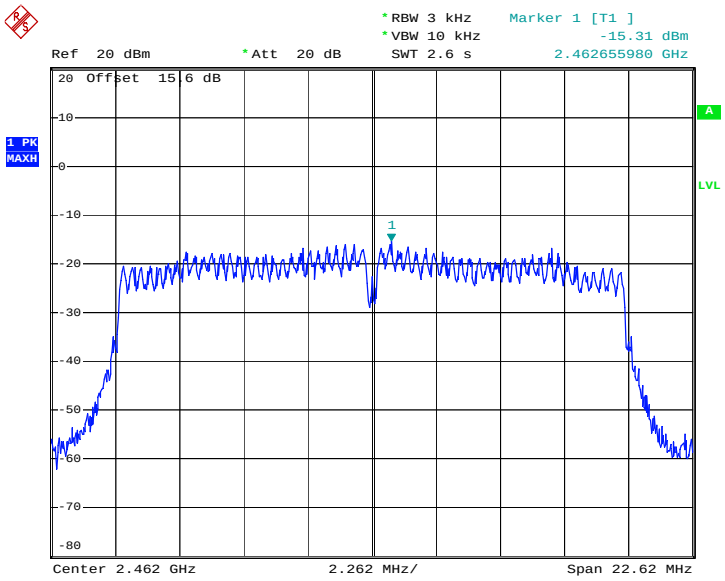
Date: 3.DEC.2012 13:22:25

PSD 3KHz Plot on 2.4G 802.11n HT20 Channel 06



Date: 6.DEC.2012 09:49:24

PSD 3KHz Plot on 2.4G 802.11n HT20 Channel 11



Date: 3.DEC.2012 13:32:34

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).

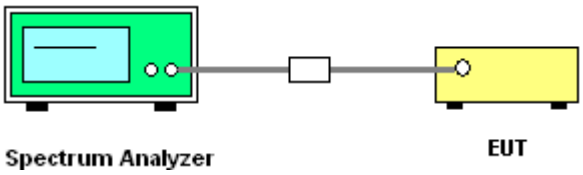
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v02.
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. The attenuation is set to 30dB, when maximum conducted output power procedure is used.
5. Measure and record the results in the test report.

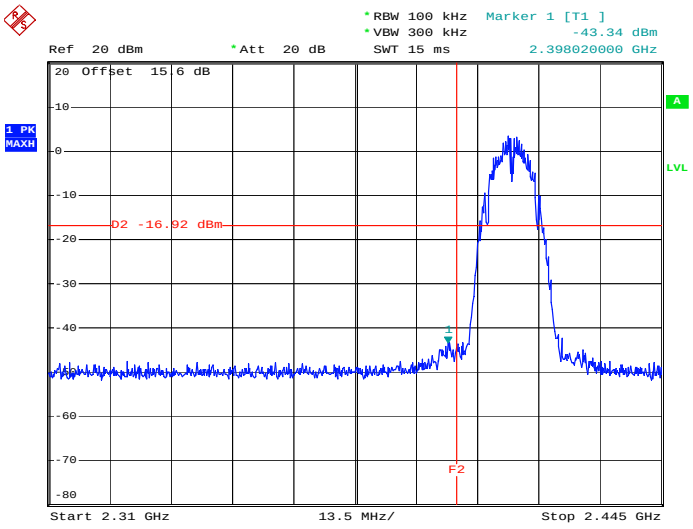
3.4.4 Test Setup



3.4.5 Test Plots of Conducted Band Edges

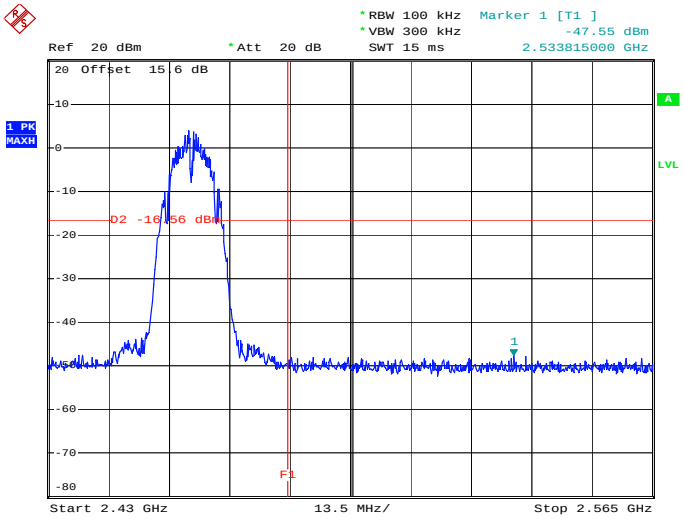
Test Mode :	802.11b	Temperature :	20~21℃
Test Band :	Low and High	Relative Humidity :	40~41%
Test Channel :	01 and 11	Test Engineer :	Cloud Peng

Low Band Edge Plot on 802.11b Channel 01



Date: 3.DEC.2012 11:31:18

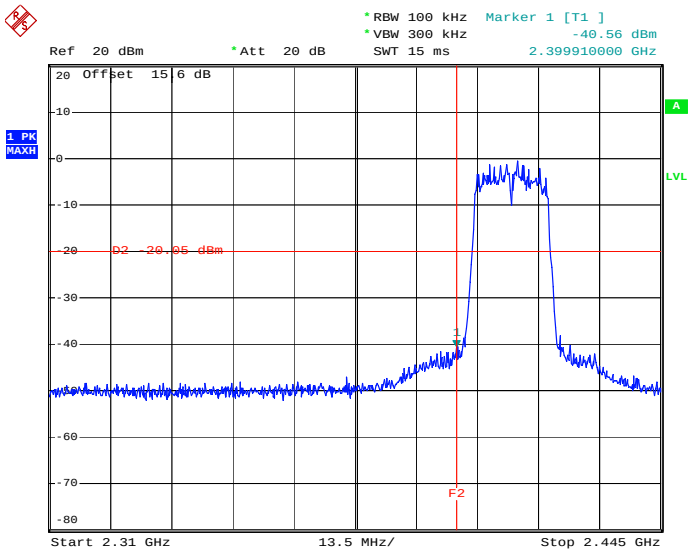
High Band Edge Plot on 802.11b Channel 11



Date: 3.DEC.2012 11:41:32

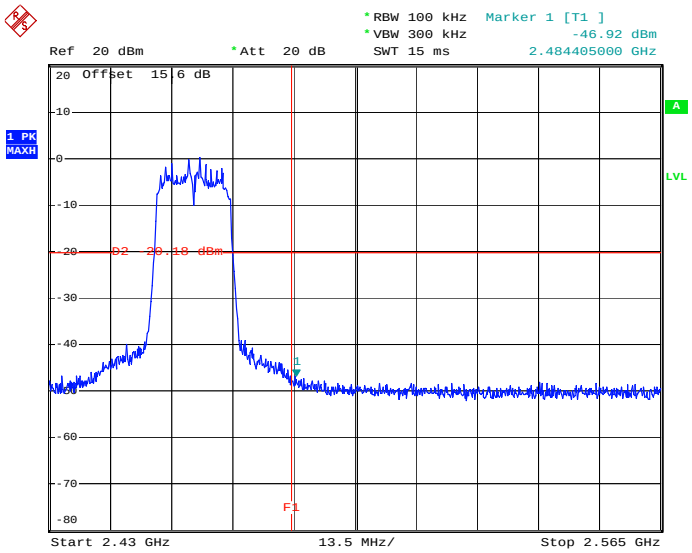
Test Mode :	802.11g	Temperature :	20~21℃
Test Band :	Low and High	Relative Humidity :	40~41%
Test Channel :	01 and 11	Test Engineer :	Cloud Peng

Low Band Edge Plot on 802.11g Channel 01



Date: 3.DEC.2012 11:48:00

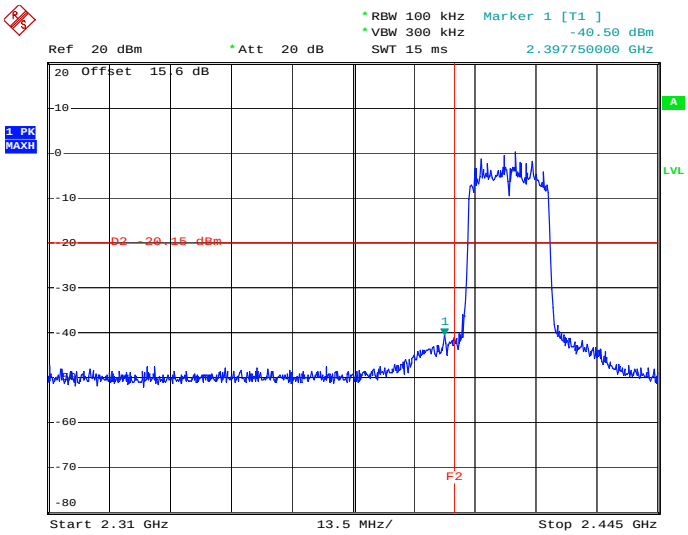
High Band Edge Plot on 802.11g Channel 11



Date: 3.DEC.2012 11:53:37

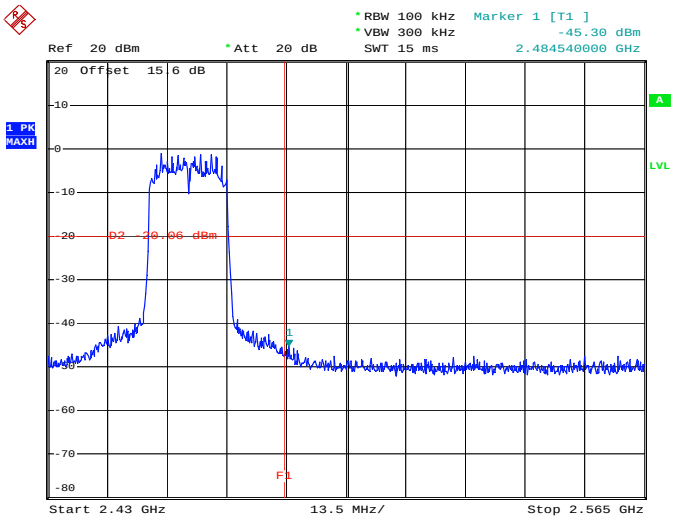
Test Mode :	802.11n HT20	Temperature :	20~21℃
Test Band :	Low and High	Relative Humidity :	40~41%
Test Channel :	01 and 11	Test Engineer :	Cloud Peng

Low Band Edge Plot on 802.11n HT20 Channel 01



Date: 3.DEC.2012 13:25:33

High Band Edge Plot on 802.11n HT20 Channel 11



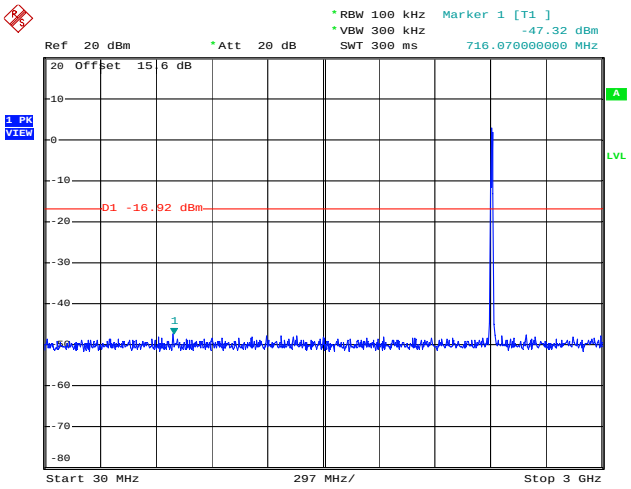
Date: 3.DEC.2012 13:33:01

3.4.6 Test Plots of Spurious Emission

Test Mode :	802.11b	Temperature :	20~21℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	40~41%
Test Channel :	01, 06, 11	Test Engineer :	Cloud Peng

802.11b 30 MHz~3 GHz

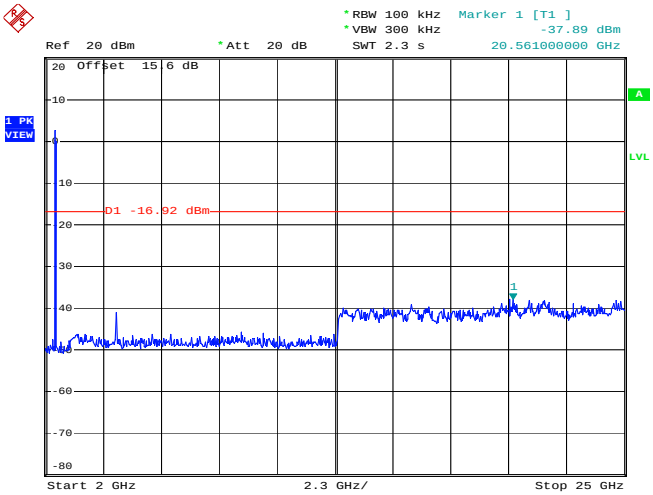
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 11:32:04

802.11b 2 GHz~25 GHz

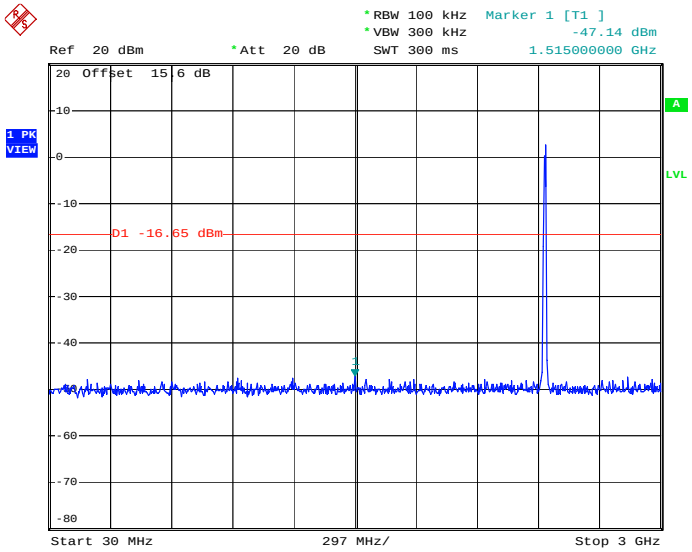
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 11:32:23

802.11b 30 MHz~3 GHz

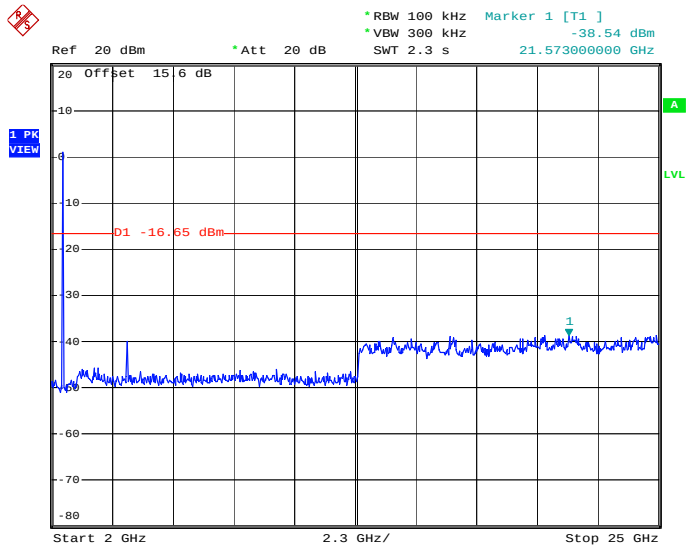
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 11:35:22

802.11b 2 GHz~25 GHz

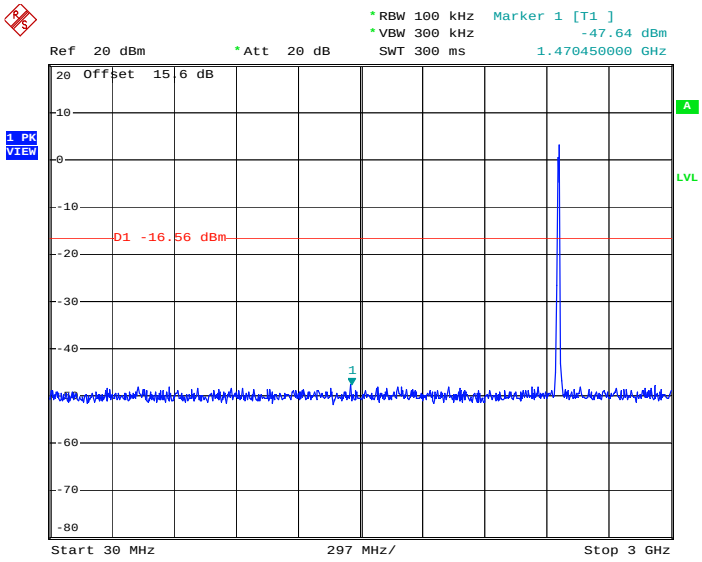
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 11:35:41

802.11b 30 MHz~3 GHz

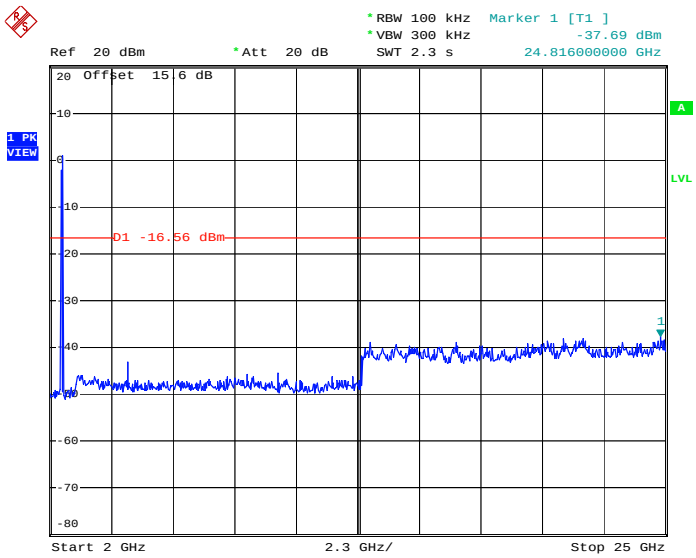
Conducted Spurious Emission Plot on Channel 11



Date: 3.DEC.2012 11:41:55

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

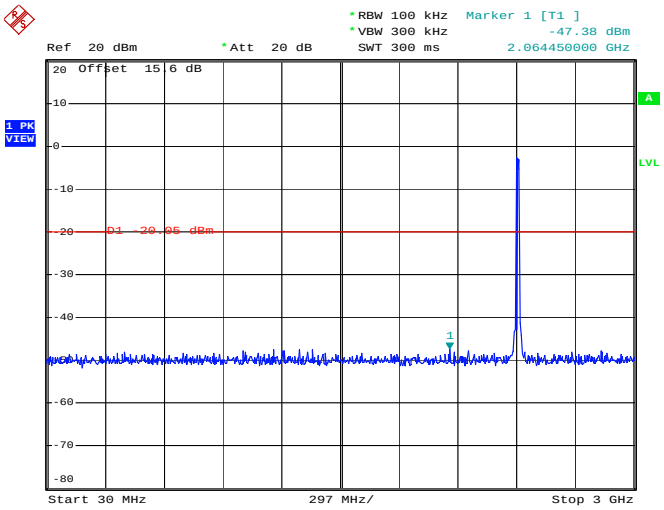


Date: 3.DEC.2012 11:42:13

Test Mode :	802.11g	Temperature :	20~21℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	40~41%
Test Channel :	01, 06, 11	Test Engineer :	Cloud Peng

802.11g 30 MHz~3 GHz

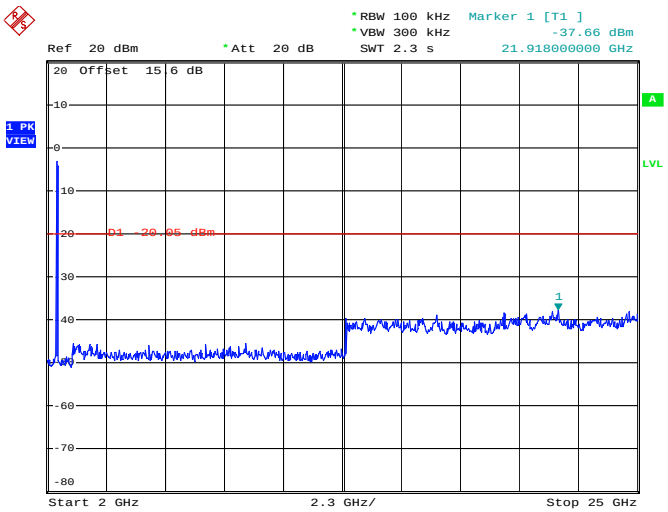
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 11:48:22

802.11g 2 GHz~25 GHz

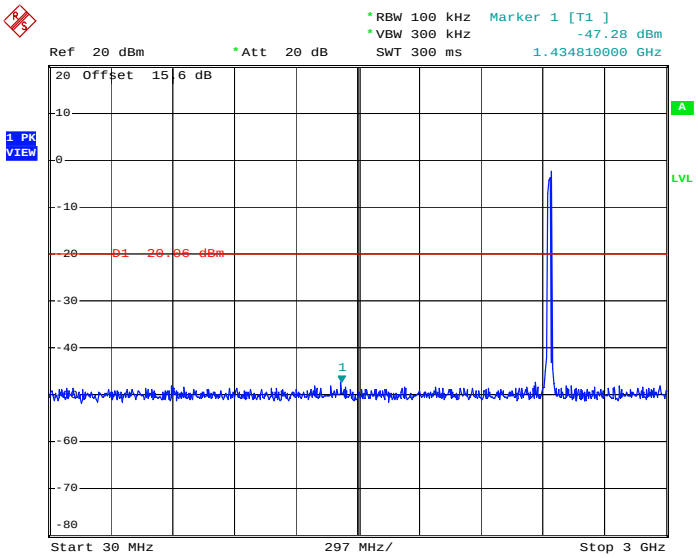
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 11:48:40

802.11g 30 MHz~3 GHz

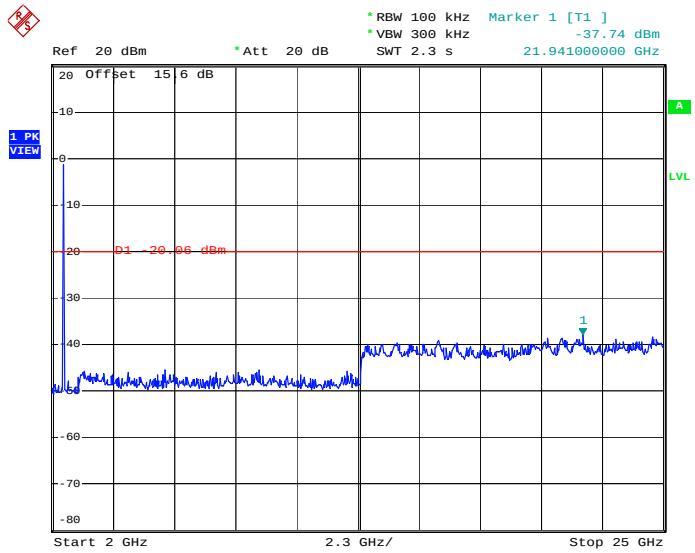
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 11:51:05

802.11g 2 GHz~25 GHz

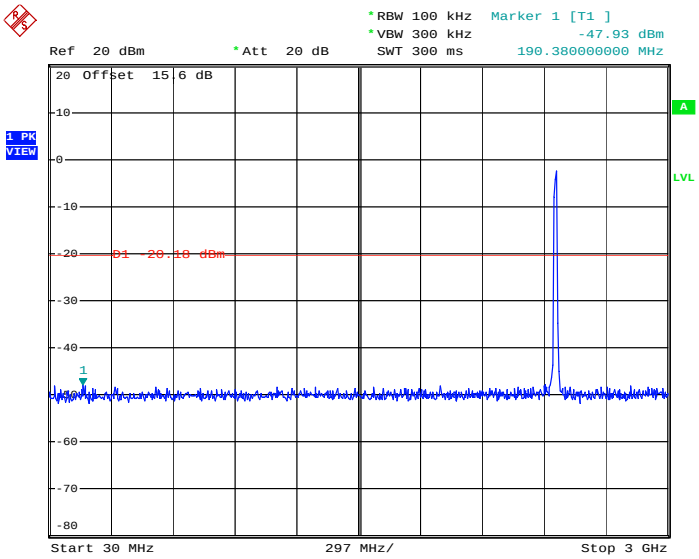
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 11:51:23

802.11g 30 MHz~3 GHz

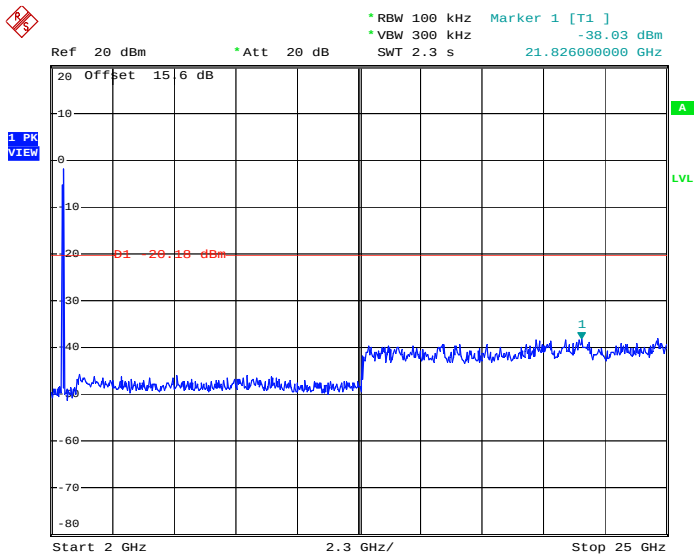
Conducted Spurious Emission Plot on Channel 11



Date: 3.DEC.2012 11:54:10

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

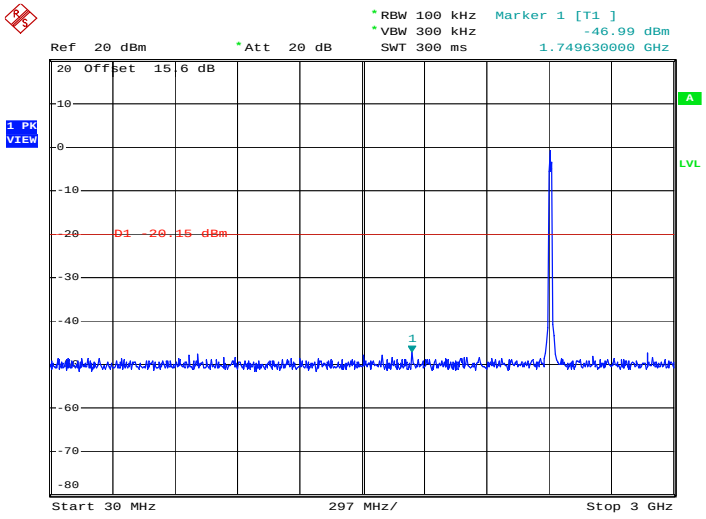


Date: 3.DEC.2012 11:54:28

Test Mode :	802.11n HT20	Temperature :	20~21℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	40~41%
Test Channel :	01, 06, 11	Test Engineer :	Cloud Peng

802.11n HT20 30 MHz~3 GHz

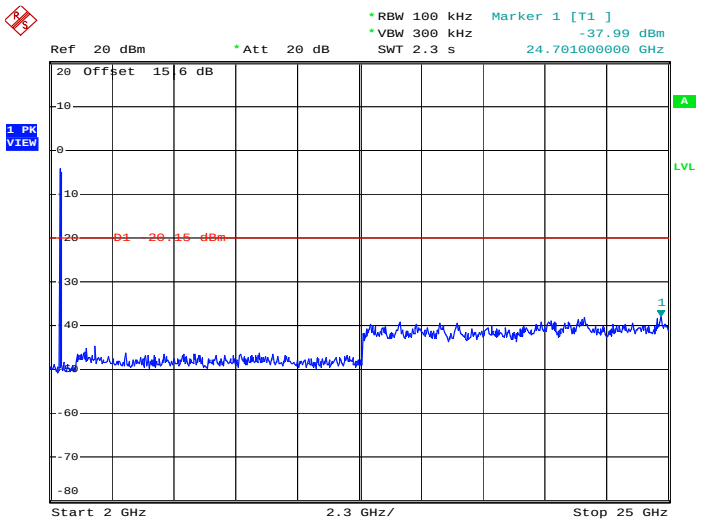
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 13:25:57

802.11n HT20 2 GHz~25 GHz

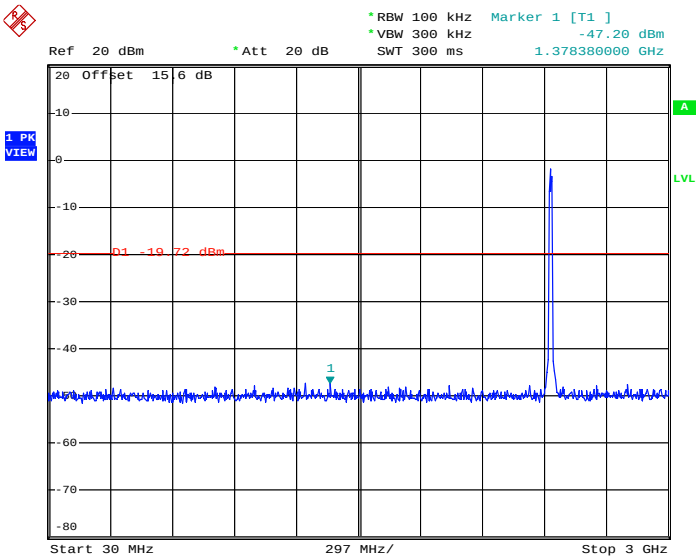
Conducted Spurious Emission Plot on Channel 01



Date: 3.DEC.2012 13:26:15

802.11n HT20 30 MHz~3 GHz

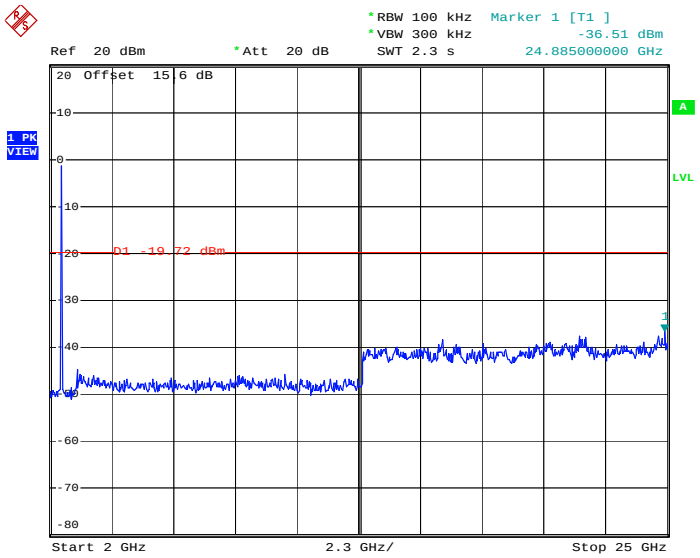
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 13:29:58

802.11n HT20 2 GHz~25 GHz

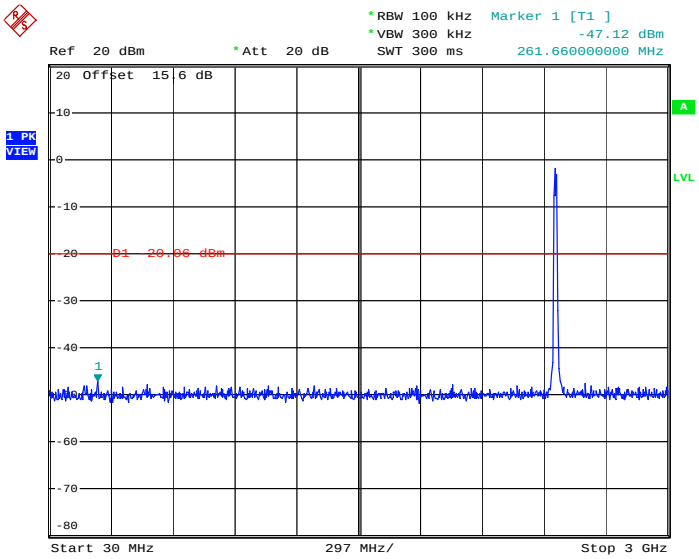
Conducted Spurious Emission Plot on Channel 06



Date: 3.DEC.2012 13:30:16

802.11n HT20 30 MHz~3 GHz

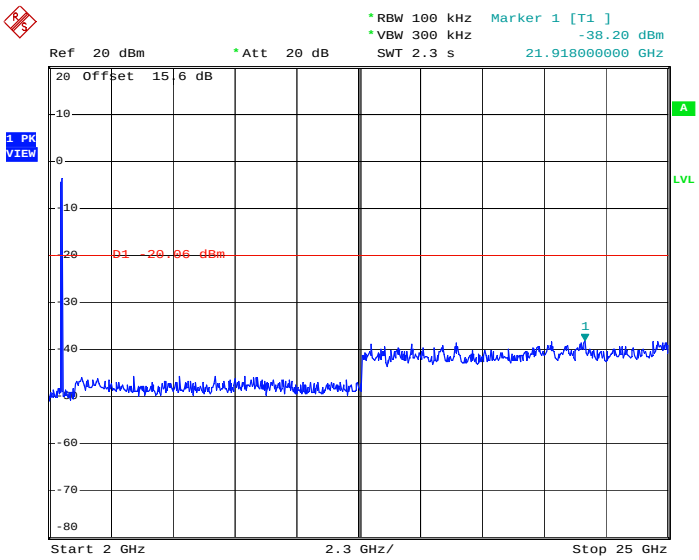
Conducted Spurious Emission Plot on Channel 11



Date: 3.DEC.2012 13:33:22

802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



Date: 3.DEC.2012 13:33:40

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

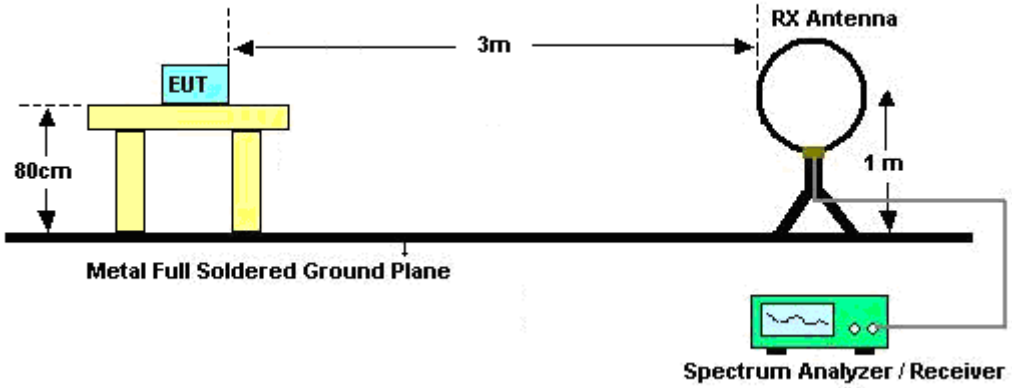
1. The testing follows the guidelines in ANSI C63. 10-2009
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better 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 ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle(%)	T(ms)	1/T(KHz)	VBW Setting
802.11b	99.082569	-	-	10Hz
802.11g	92.857143	1.430	0.6993007	1KHz
2.4G 802.11n HT20	92.361111	1.330	0.7518797	1KHz

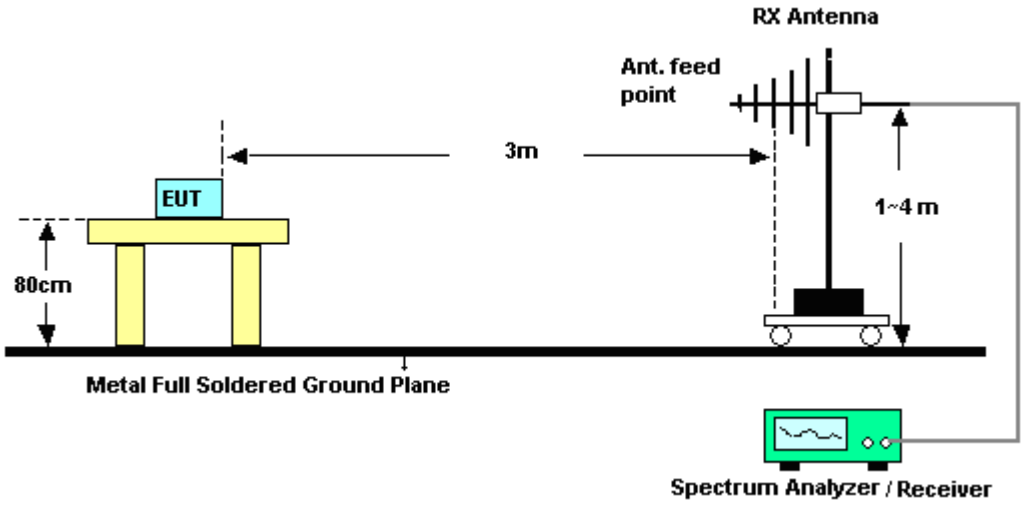
Note: For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.

3.5.4 Test Setup

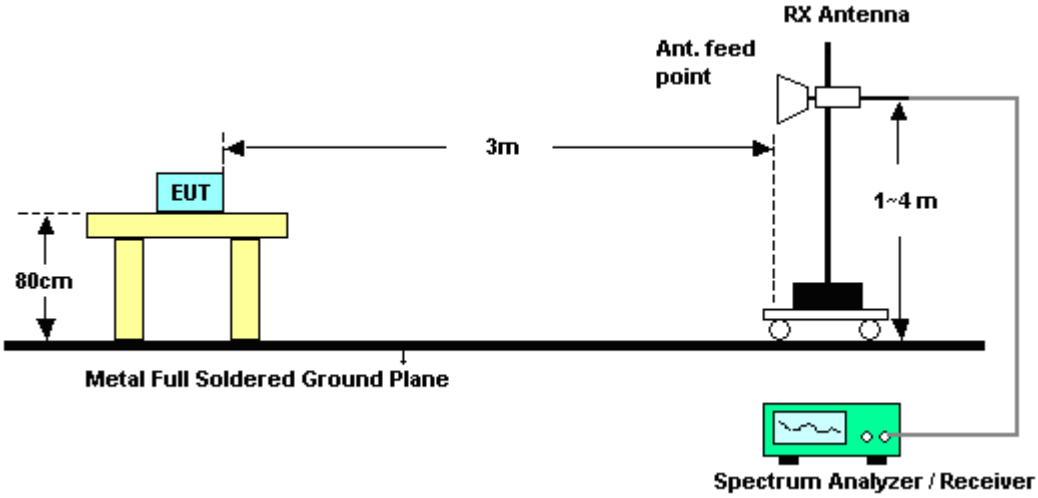
For radiated emissions below 30MHz



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°C
Test Band :	Low	Relative Humidity :	45~46%
Test Channel :	01	Test Engineer :	Allen 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
2332.32	58.06	-15.94	74	54.75	32.76	2.06	31.51	115	156	Peak
2332.05	45.52	-8.48	54	42.21	32.76	2.06	31.51	117	168	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
2332.14	52.78	-21.22	74	49.47	32.76	2.06	31.51	134	6	Peak
2332.05	40.02	-13.98	54	36.71	32.76	2.06	31.51	135	7	Average

Test Mode :	802.11b	Temperature :	21~22°C
Test Band :	High	Relative Humidity :	45~46%
Test Channel :	11	Test Engineer :	Allen 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
2487.1	55.58	-18.42	74	51.92	33.01	2.16	31.51	178	39	Peak
2483.5	41.53	-12.47	54	37.87	33.01	2.16	31.51	114	32	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
2484.82	51.56	-22.44	74	47.9	33.01	2.16	31.51	171	139	Peak
2483.66	37.24	-16.76	54	33.58	33.01	2.16	31.51	171	139	Average

Test Mode :	802.11g	Temperature :	21~22°C
Test Band :	Low	Relative Humidity :	45~46%
Test Channel :	01	Test Engineer :	Allen 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
2390	65.99	-8.01	74	62.53	32.86	2.11	31.51	120	48	Peak
2390	50.9	-3.1	54	47.44	32.86	2.11	31.51	120	53	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
2389.02	60.98	-13.02	74	57.52	32.86	2.11	31.51	180	69	Peak
2390	45.12	-8.88	54	41.66	32.86	2.11	31.51	182	71	Average

Test Mode :	802.11g	Temperature :	21~22°C
Test Band :	High	Relative Humidity :	45~46%
Test Channel :	11	Test Engineer :	Allen 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
2483.6	66.64	-7.36	74	62.98	33.01	2.16	31.51	141	40	Peak
2483.5	49.65	-4.35	54	45.99	33.01	2.16	31.51	114	40	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
2483.54	58.24	-15.76	74	54.58	33.01	2.16	31.51	178	123	Peak
2483.5	43.35	-10.65	54	39.69	33.01	2.16	31.51	172	132	Average

Test Mode :	802.11n HT20	Temperature :	21~22°C
Test Band :	Low	Relative Humidity :	45~46%
Test Channel :	01	Test Engineer :	Allen 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
2388.12	68.93	-5.07	74	65.47	32.86	2.11	31.51	100	192	Peak
2390	51.8	-2.2	54	48.34	32.86	2.11	31.51	145	210	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
2387.85	61.66	-12.34	74	58.2	32.86	2.11	31.51	100	162	Peak
2390	46.2	-7.8	54	42.74	32.86	2.11	31.51	100	144	Average

Test Mode :	802.11n HT20	Temperature :	21~22°C
Test Band :	High	Relative Humidity :	45~46%
Test Channel :	11	Test Engineer :	Allen 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
2483.68	63.49	-10.51	74	59.83	33.01	2.16	31.51	100	166	Peak
2483.68	49.79	-4.21	54	46.13	33.01	2.16	31.51	100	169	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
2483.7	54.81	-19.19	74	51.15	33.01	2.16	31.51	100	109	Peak
2483.72	41.27	-12.73	54	37.61	33.01	2.16	31.51	100	151	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 :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
33.562	18.33	-21.67	40	36.01	15.56	0.36	33.6	-	-	Peak
229.293	35.1	-10.9	46	56.88	10.83	0.88	33.49	200	145	Peak
304.61	33.52	-12.48	46	52.79	13.1	1	33.37	-	-	Peak
354.183	31.93	-14.07	46	49.61	14.58	1.1	33.36	-	-	Peak
457.507	26.94	-19.06	46	42.53	16.4	1.21	33.2	-	-	Peak
962.162	27.74	-26.26	54	37.61	20.8	1.77	32.44	-	-	Peak
2412	102.62	-	-	99.12	32.89	2.12	31.51	115	167	Average
2412	107.78	-	-	104.28	32.89	2.12	31.51	115	167	Peak

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
33.211	21.99	-18.01	40	39.19	16.04	0.35	33.59	-	-	Peak
53.882	23.76	-16.24	40	50.39	6.49	0.46	33.58	-	-	Peak
228.49	24.78	-21.22	46	46.56	10.83	0.88	33.49	-	-	Peak
346.809	30.48	-15.52	46	48.3	14.44	1.1	33.36	110	320	Peak
457.507	30.24	-15.76	46	45.83	16.4	1.21	33.2	-	-	Peak
962.162	27.78	-26.22	54	37.65	20.8	1.77	32.44	-	-	Peak
2412	94.72	-	-	91.22	32.89	2.12	31.51	134	6	Average
2412	99.72	-	-	96.22	32.89	2.12	31.51	134	6	Peak

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
53.882	14.39	-25.61	40	41.02	6.49	0.46	33.58	-	-	Peak
229.293	37.06	-8.94	46	58.84	10.83	0.88	33.49	100	310	Peak
304.61	34.27	-11.73	46	53.54	13.1	1	33.37	-	-	Peak
360.448	32.6	-13.4	46	50.09	14.75	1.11	33.35	-	-	Peak
459.114	28.21	-17.79	46	43.77	16.42	1.22	33.2	-	-	Peak
982.62	29.45	-24.55	54	39.06	20.99	1.83	32.43	-	-	Peak
2437	101.68	-	-	98.1	32.95	2.14	31.51	140	211	Average
2437	106.84	-	-	103.26	32.95	2.14	31.51	140	211	Peak

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
53.882	24.21	-15.79	40	50.84	6.49	0.46	33.58	-	-	Peak
228.49	29.29	-16.71	46	51.07	10.83	0.88	33.49	-	-	Peak
305.68	30.02	-15.98	46	49.26	13.13	1	33.37	-	-	Peak
382.588	33.21	-12.79	46	49.88	15.53	1.13	33.33	-	-	Peak
459.114	33.33	-12.67	46	48.89	16.42	1.22	33.2	100	25	Peak
1000	30.53	-23.47	54	39.99	21.1	1.86	32.42	-	-	Peak
2437	95.14	-	-	91.56	32.95	2.14	31.51	198	121	Average
2437	100.46	-	-	96.88	32.95	2.14	31.51	198	121	Peak

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
57.392	16.51	-23.49	40	43.87	5.75	0.47	33.58	-	-	Peak
229.293	34.82	-11.18	46	56.6	10.83	0.88	33.49	136	258	Peak
336.035	32.53	-13.47	46	50.64	14.17	1.08	33.36	-	-	Peak
349.25	32.93	-13.07	46	50.71	14.48	1.1	33.36	-	-	Peak
459.114	29.25	-16.75	46	44.81	16.42	1.22	33.2	-	-	Peak
929.008	31.77	-14.23	46	41.82	20.63	1.76	32.44	-	-	Peak
2462	101.89	-	-	98.27	32.98	2.15	31.51	175	34	Average
2462	107.11	-	-	103.49	32.98	2.15	31.51	175	34	Peak

Test Mode :	802.11b	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
33.095	21.99	-18.01	40	39.19	16.04	0.35	33.59	-	-	Peak
53.693	28.66	-11.34	40	54.99	6.8	0.45	33.58	100	0	Peak
229.293	25.27	-20.73	46	47.05	10.83	0.88	33.49	-	-	Peak
343.18	30.8	-15.2	46	48.72	14.35	1.09	33.36	-	-	Peak
457.507	31.09	-14.91	46	46.68	16.4	1.21	33.2	-	-	Peak
962.162	28.15	-25.85	54	38.02	20.8	1.77	32.44	-	-	Peak
2462	95.72	-	-	92.1	32.98	2.15	31.51	170	110	Average
2462	100.78	-	-	97.16	32.98	2.15	31.51	170	110	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
31.731	19.27	-20.73	40	35.95	16.55	0.35	33.58	-	-	Peak
228.49	35.52	-10.48	46	57.3	10.83	0.88	33.49	100	29	Peak
304.61	33.03	-12.97	46	52.3	13.1	1	33.37	-	-	Peak
346.809	34.08	-11.92	46	51.9	14.44	1.1	33.36	-	-	Peak
457.507	29.51	-16.49	46	45.1	16.4	1.21	33.2	-	-	Peak
737.071	26.46	-19.54	46	37.91	19.78	1.57	32.8	-	-	Peak
2412	97.33	-	-	93.83	32.89	2.12	31.51	120	50	Average
2412	108.6	-	-	105.1	32.89	2.12	31.51	120	50	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
33.211	21.81	-18.19	40	39.01	16.04	0.35	33.59	-	-	Peak
53.882	28.79	-11.21	40	55.42	6.49	0.46	33.58	167	230	Peak
228.49	30.22	-15.78	46	52	10.83	0.88	33.49	-	-	Peak
346.809	30.12	-15.88	46	47.94	14.44	1.1	33.36	-	-	Peak
457.507	30.24	-15.76	46	45.83	16.4	1.21	33.2	-	-	Peak
537.589	28.05	-17.95	46	41.52	18.24	1.33	33.04	-	-	Peak
2412	91.05	-	-	87.55	32.89	2.12	31.51	181	69	Average
2412	101.85	-	-	98.35	32.89	2.12	31.51	181	69	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
32.749	19.8	-20.2	40	37	16.04	0.35	33.59	-	-	Peak
202.1	27.23	-16.27	43.5	50.89	9.08	0.82	33.56	-	-	Peak
229.293	35.48	-10.52	46	57.26	10.83	0.88	33.49	-	-	Peak
305.68	35.9	-10.1	46	55.14	13.13	1	33.37	150	69	Peak
349.25	32.41	-13.59	46	50.19	14.48	1.1	33.36	-	-	Peak
962.162	27.62	-26.38	54	37.49	20.8	1.77	32.44	-	-	Peak
2437	96.88	-	-	93.3	32.95	2.14	31.51	176	50	Average
2437	107.57	-	-	103.99	32.95	2.14	31.51	176	50	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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	21.74	-18.26	40	38.94	16.04	0.35	33.59	-	-	Peak
53.882	25.44	-14.56	40	52.07	6.49	0.46	33.58	-	-	Peak
229.293	30.89	-15.11	46	52.67	10.83	0.88	33.49	-	-	Peak
381.249	30.46	-15.54	46	47.17	15.49	1.13	33.33	-	-	Peak
457.507	31.61	-14.39	46	47.2	16.4	1.21	33.2	200	135	Peak
962.162	29.94	-24.06	54	39.81	20.8	1.77	32.44	-	-	Peak
2437	91.12	-	-	87.54	32.95	2.14	31.51	181	72	Average
2437	102.14	-	-	98.56	32.95	2.14	31.51	181	72	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
34.156	18.42	-21.58	40	36.1	15.56	0.36	33.6	-	-	Peak
229.293	35.19	-10.81	46	56.97	10.83	0.88	33.49	200	310	Peak
304.61	33.88	-12.12	46	53.15	13.1	1	33.37	-	-	Peak
357.929	31.57	-14.43	46	49.14	14.67	1.11	33.35	-	-	Peak
457.507	27.72	-18.28	46	43.31	16.4	1.21	33.2	-	-	Peak
962.162	27.73	-26.27	54	37.6	20.8	1.77	32.44	-	-	Peak
2462	96.85	-	-	93.23	32.98	2.15	31.51	141	40	Average
2462	107.22	-	-	103.6	32.98	2.15	31.51	141	40	Peak

Test Mode :	802.11g	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
33.211	21.91	-18.09	40	39.11	16.04	0.35	33.59	-	-	Peak
53.882	25.44	-14.56	40	52.07	6.49	0.46	33.58	-	-	Peak
229.293	30.94	-15.06	46	52.72	10.83	0.88	33.49	-	-	Peak
341.979	30.11	-15.89	46	48.05	14.33	1.09	33.36	-	-	Peak
457.507	33.3	-12.7	46	48.89	16.4	1.21	33.2	135	240	Peak
996.5	31.53	-22.47	54	41.03	21.08	1.85	32.43	-	-	Peak
2462	90.36	-	-	86.74	32.98	2.15	31.51	172	123	Average
2462	100.81	-	-	97.19	32.98	2.15	31.51	172	123	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
55.027	27.3	-12.7	40	54.22	6.2	0.46	33.58	-	-	Peak
228.49	36	-10	46	57.78	10.83	0.88	33.49	100	145	Peak
304.61	34.72	-11.28	46	53.99	13.1	1	33.37	-	-	Peak
341.979	32.36	-13.64	46	50.3	14.33	1.09	33.36	-	-	Peak
459.114	27.47	-18.53	46	43.03	16.42	1.22	33.2	-	-	Peak
962.162	27.93	-26.07	54	37.8	20.8	1.77	32.44	-	-	Peak
2412	97.01	-	-	93.51	32.89	2.12	31.51	145	211	Average
2412	106.94	-	-	103.44	32.89	2.12	31.51	145	211	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	01	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2412 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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	21.83	-18.17	40	39.03	16.04	0.35	33.59	-	-	Peak
53.882	25.46	-14.54	40	52.09	6.49	0.46	33.58	-	-	Peak
228.49	30.91	-15.09	46	52.69	10.83	0.88	33.49	-	-	Peak
382.588	31.14	-14.86	46	47.81	15.53	1.13	33.33	-	-	Peak
457.507	33.17	-12.83	46	48.76	16.4	1.21	33.2	105	20	Peak
962.162	29.32	-24.68	54	39.19	20.8	1.77	32.44	-	-	Peak
2412	91.18	-	-	87.68	32.89	2.12	31.51	100	144	Average
2412	101.05	-	-	97.55	32.89	2.12	31.51	100	144	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
32.749	18.91	-21.09	40	36.11	16.04	0.35	33.59	-	-	Peak
229.293	36.72	-9.28	46	58.5	10.83	0.88	33.49	200	215	Peak
304.61	34.17	-11.83	46	53.44	13.1	1	33.37	-	-	Peak
352.943	32.72	-13.28	46	50.42	14.56	1.1	33.36	-	-	Peak
457.507	27.34	-18.66	46	42.93	16.4	1.21	33.2	-	-	Peak
962.162	28.19	-25.81	54	38.06	20.8	1.77	32.44	-	-	Peak
2437	96.53	-	-	92.95	32.95	2.14	31.51	145	211	Average
2437	107.19	-	-	103.61	32.95	2.14	31.51	145	211	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	06	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
53.882	24.4	-15.6	40	51.03	6.49	0.46	33.58	-	-	Peak
229.293	30.82	-15.18	46	52.6	10.83	0.88	33.49	-	-	Peak
262.896	28.16	-17.84	46	48.45	12.21	0.93	33.43	-	-	Peak
341.979	30.23	-15.77	46	48.17	14.33	1.09	33.36	-	-	Peak
382.588	32.25	-13.75	46	48.92	15.53	1.13	33.33	-	-	Peak
459.114	33.72	-12.28	46	49.28	16.42	1.22	33.2	100	106	Peak
2437	88.23	-	-	84.65	32.95	2.14	31.51	100	201	Average
2437	97.73	-	-	94.15	32.95	2.14	31.51	100	201	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Horizontal
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
31.843	18.6	-21.4	40	35.28	16.55	0.35	33.58	-	-	Peak
228.49	35.23	-10.77	46	57.01	10.83	0.88	33.49	-	-	Peak
305.68	35.59	-10.41	46	54.83	13.13	1	33.37	120	300	Peak
345.595	32.63	-13.37	46	50.5	14.4	1.09	33.36	-	-	Peak
457.507	30.08	-15.92	46	45.67	16.4	1.21	33.2	-	-	Peak
942.131	27.9	-18.1	46	37.89	20.7	1.75	32.44	-	-	Peak
2462	97.48	-	-	93.86	32.98	2.15	31.51	145	212	Average
2462	106.7	-	-	103.08	32.98	2.15	31.51	145	212	Peak

Test Mode :	802.11n-HT20	Temperature :	21~22℃
Test Channel :	11	Relative Humidity :	45~46%
Test Engineer :	Allen Cheng	Polarization :	Vertical
Remark :	1. 2462 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported and considered that's already beyond the background noise floor per15.31.		

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
36.127	24.84	-15.16	40	43.44	14.65	0.37	33.62	-	-	Peak
50.942	31.69	-8.31	40	57.62	7.21	0.44	33.58	200	178	Peak
53.882	29.27	-10.73	40	55.9	6.49	0.46	33.58	-	-	Peak
229.293	31.64	-14.36	46	53.42	10.83	0.88	33.49	-	-	Peak
382.588	31.64	-14.36	46	48.31	15.53	1.13	33.33	-	-	Peak
457.507	33.8	-12.2	46	49.39	16.4	1.21	33.2	-	-	Peak
2462	89.3	-	-	85.68	32.98	2.15	31.51	100	143	Average
2462	98.94	-	-	95.32	32.98	2.15	31.51	100	143	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 (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.

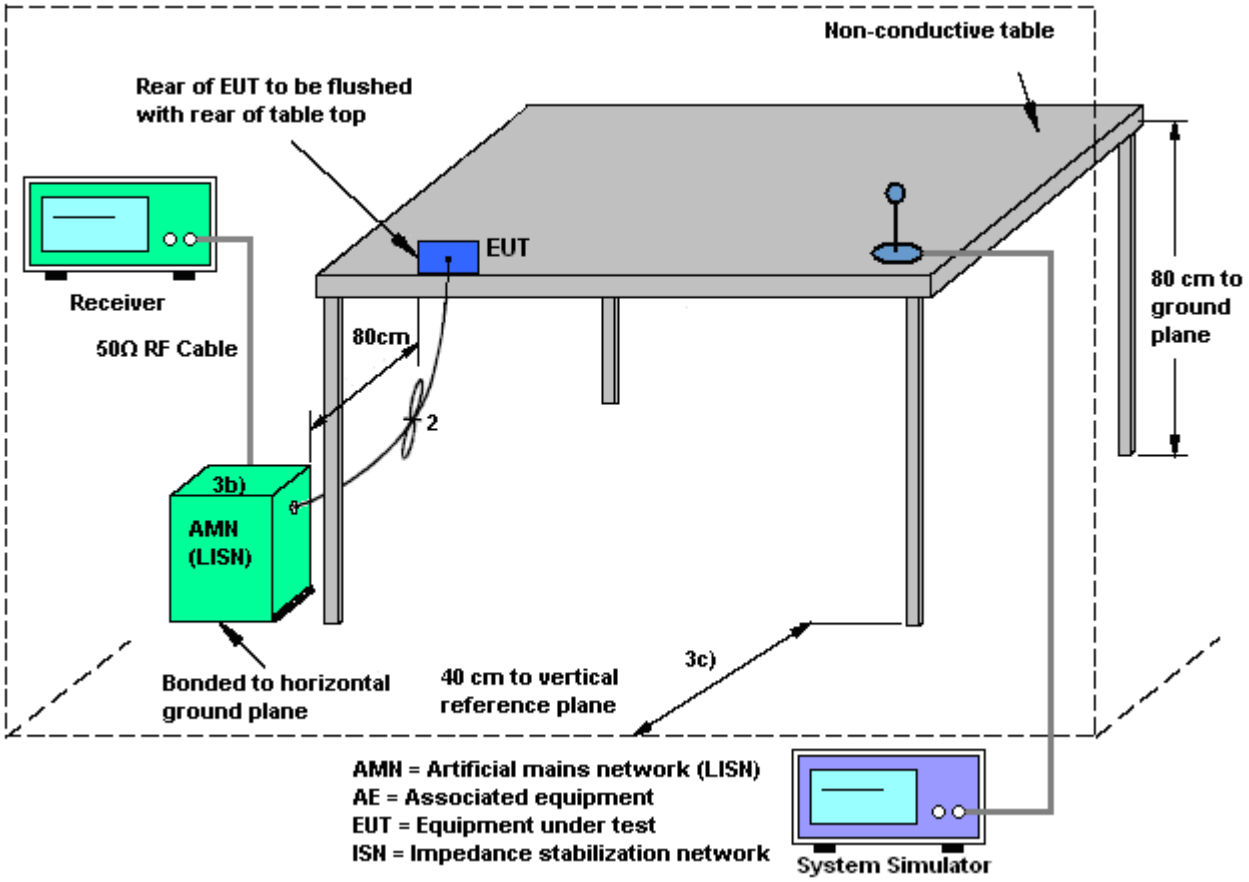
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

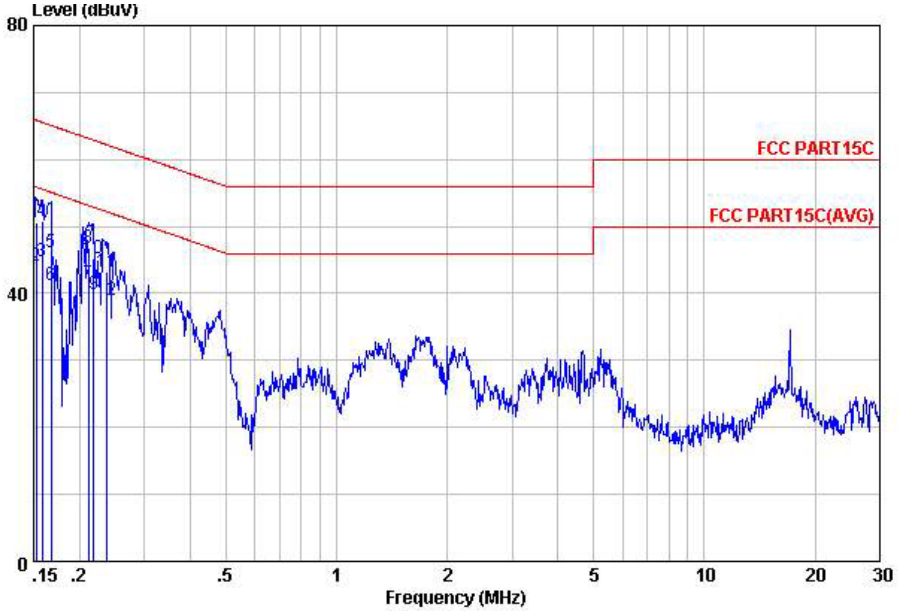
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance 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

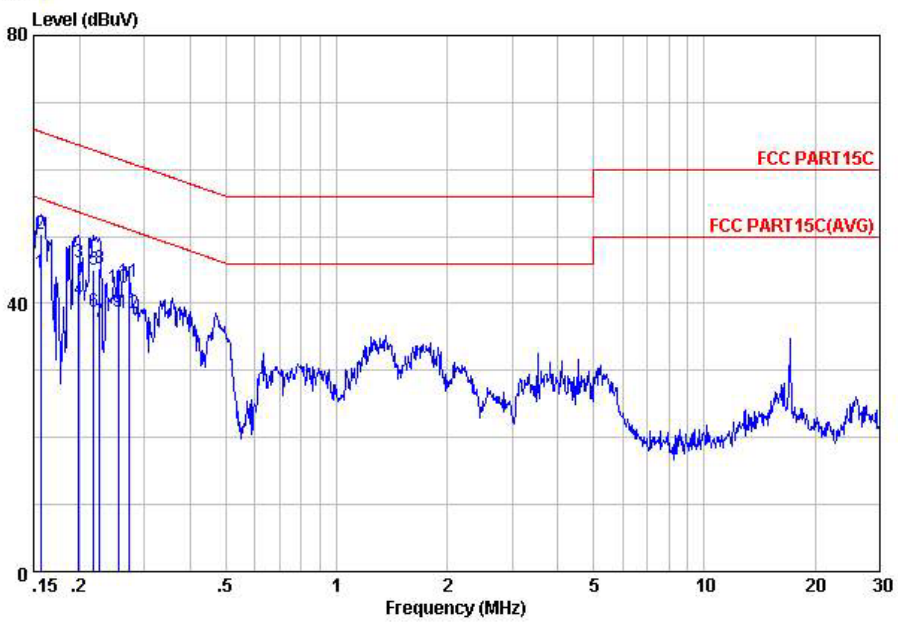
Test Mode :	Mode 1	Temperature :	19~20℃
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	CDMA2000 BC0 Idle + WLAN Link + USB Charging from Notebook		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : C001-KS
Condition: FCC PART15C LISN-111230 LINE
Project : (FR) 2N1603
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	50.63	-15.24	65.87	40.50	-0.07	10.20	QP
2	0.15	44.23	-11.64	55.87	34.10	-0.07	10.20	Average
3	0.16	44.83	-10.73	55.56	34.70	-0.07	10.20	Average
4	0.16	50.73	-14.83	65.56	40.60	-0.07	10.20	QP
5	0.17	46.04	-19.04	65.08	35.90	-0.07	10.21	QP
6	0.17	41.34	-13.74	55.08	31.20	-0.07	10.21	Average
7	0.21	41.55	-11.59	53.14	31.40	-0.07	10.22	Average
8	0.21	46.85	-16.29	63.14	36.70	-0.07	10.22	QP
9	0.22	39.95	-12.93	52.88	29.80	-0.07	10.22	Average
10	0.22	45.25	-17.63	62.88	35.10	-0.07	10.22	QP
11	0.24	43.20	-18.97	62.17	33.05	-0.07	10.22	QP
12	0.24	38.90	-13.27	52.17	28.75	-0.07	10.22	Average

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 + USB Charging from Notebook		
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) 2N1603
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	44.63	-11.02	55.65	34.52	-0.09	10.20	Average
2	0.16	50.43	-15.22	65.65	40.32	-0.09	10.20	QP
3	0.20	46.15	-17.52	63.67	36.00	-0.07	10.22	QP
4	0.20	40.45	-13.22	53.67	30.30	-0.07	10.22	Average
5	0.22	44.95	-17.93	62.88	34.80	-0.07	10.22	QP
6	0.22	38.75	-14.13	52.88	28.60	-0.07	10.22	Average
7	0.23	37.25	-15.32	52.57	27.10	-0.07	10.22	Average
8	0.23	45.15	-17.42	62.57	35.00	-0.07	10.22	QP
9	0.25	38.76	-12.84	51.60	28.60	-0.07	10.23	Average
10	0.25	42.26	-19.34	61.60	32.10	-0.07	10.23	QP
11	0.27	43.20	-17.87	61.07	33.04	-0.07	10.23	QP
12	0.27	38.60	-12.47	51.07	28.44	-0.07	10.23	Average

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.7.2 Antenna 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	Dec. 06, 2012	Dec. 29, 2012	Conducted (TH01-KS)
Power Meter	Agilent	E4416A	MY45101555	N/A	Aug. 22, 2012	Dec. 06, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Power Sensor	Agilent	E9327A	MY44421198	N/A	Aug. 22, 2012	Dec. 06, 2012	Aug. 21, 2013	Conducted (TH01-KS)
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 22, 2012	Dec. 06, 2012	Aug. 21, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 30, 2011	Dec. 06, 2012	Dec. 29, 2012	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Dec. 04, 2012	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Dec. 04, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Dec. 04, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/ 001	9 kHz~30 MHz	Jul. 03, 2012	Dec. 04, 2012	Jul. 02, 2014	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2012	Dec. 04, 2012	Jan. 05, 2013	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	Jun. 01, 2012	Dec. 04, 2012	May 31, 2013	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Dec. 04, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 06, 2012	Dec. 04, 2012	Nov. 05, 2013	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	9170249	15GHz~40GHz	Nov. 23, 2012	Dec. 04, 2012	Nov. 22, 2013	Radiation (03CH01-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	Jun. 01, 2012	Nov. 30, 2012	May 31, 2013	Conduction (CO01-KS)
LISN	MessTec	AN3016	60103	9kHz~30MHz	Dec. 30, 2011	Nov. 30, 2012	Dec. 29, 2012	Conduction (CO01-KS)
LISN	MessTec	AN3016	60105	9kHz~30MHz	Dec. 30, 2011	Nov. 30, 2012	Dec. 29, 2012	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	N/A	Nov. 15, 2012	Nov. 30, 2012	Nov. 14, 2013	Conduction (CO01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Nov. 30, 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 EP2N1603 as below.