FCC RF Test Report

APPLICANT	:	Nevilles LLC
EQUIPMENT	:	Electronic Display Device
MODEL NAME	:	D01100
FCC ID	:	ZEG-0725
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	Digital Transmission System (DTS)

The product was received on Mar. 03, 2011 and completely tested on May 10, 2011. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 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 INC., the test report shall not be reproduced except in full.

Reviewed by:

Roy Wu / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR130326	Rev. 01	Initial issue of report	Jun. 08, 2011

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	≤ 30dBm	Pass	-
3.3	15.247(d)	A8.5	Frequency Band Edges	≤ 20dBc	Pass	-
3.4	15.247(d)	A8.5	Spurious Emission	< 20 dBc	Pass	-
3.5	15.247(e)	A8.2(b)	Power Spectral Density	≤ 8dBm	Pass	-
3.6	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	-
3.8	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	-
3.8	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Nevilles LLC
33 North LaSalle Street, Suite 2320
Chicago, IL 60602-2604

1.2 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Electronic Display Device
Model Name	D01100
FCC ID	ZEG-0725
Tx/Rx Frequency Range	2400 MHz ~ 2483.5 MHz
Number of Channels	11
Carrier Frequency of Each Channel	2412+(n-1)*5 MHz; n=1~11
Channel Spacing	5 MHz
Maximum Output Power to Antenna	802.11b : 17.2 dBm (0.05 W) 802.11g : 23.7 dBm (0.23 W) 802.11n (BW 20MHz) : 20.5 dBm (0.11 W)
Antenna Type	Fixed Internal Antenna with gain 1 dBi
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.3 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH07-HY	722060/4086B-1

1.4 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 (Measurement Guidelines of DTS)
- ANSI C63.4-2003
- IC RSS-210 Issue 8

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 (DoC), recorded in a separate test report.

1.5 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Adapter	NA	NA	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Vostro 1510	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

Channel	Frequency (MHz)	2.4GHz 802.11b RF Power (dBm)			
		DSSS Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	16.3	16.9	16.4	17.0
CH 06	2437 MHz	16.3	17.1	16.9	17.2
CH 11	2462 MHz	17.0	17.2	17.1	**17.2**

Channel	Frequency (MHz)	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	23.3	23.4	23.6	23.1	23.3	23.6	23.3	23.6
CH 06	2437 MHz	23.7	23.6	23.5	23.6	23.3	23.3	23.5	23.4
CH 11	2462 MHz	**23.7**	23.6	23.4	23.4	23.0	23.0	23.6	23.4

Channel	Frequency (MHz)	2.4GHz 802.11n (BW 20MHz) RF Power (dBm)							
		OFDM Data Rate							
		M0	M1	M2	M3	M4	M5	M6	M7
CH 01	2412 MHz	20.2	20.1	20	20.3	20.4	20.2	20.4	20.3
CH 06	2437 MHz	20.2	20.4	20.1	20.4	20.2	20.1	20.4	20.1
CH 11	2462 MHz	**20.5**	20.3	20.2	20.1	20.1	20.1	20.1	20.2

Remark:

1. The data rates of WLAN 802.11b/g/n were set in 11Mbps for 802.11b, 6Mbps for 802.11g, and M0 for 802.11n (BW 20MHz) for all the test cases due to the highest RF output power.
2. The EUT is programmed to transmit signals continuously for all testing.

2.2 Test Mode

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

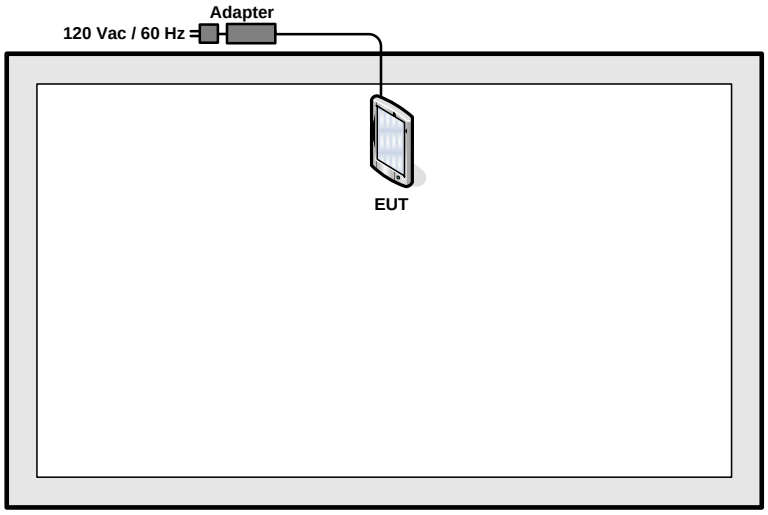
Pre-scanned tests, X, Y, Z in three orthogonal panels, were conducted to determine the final configuration from all possible combinations, tablet modes.

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

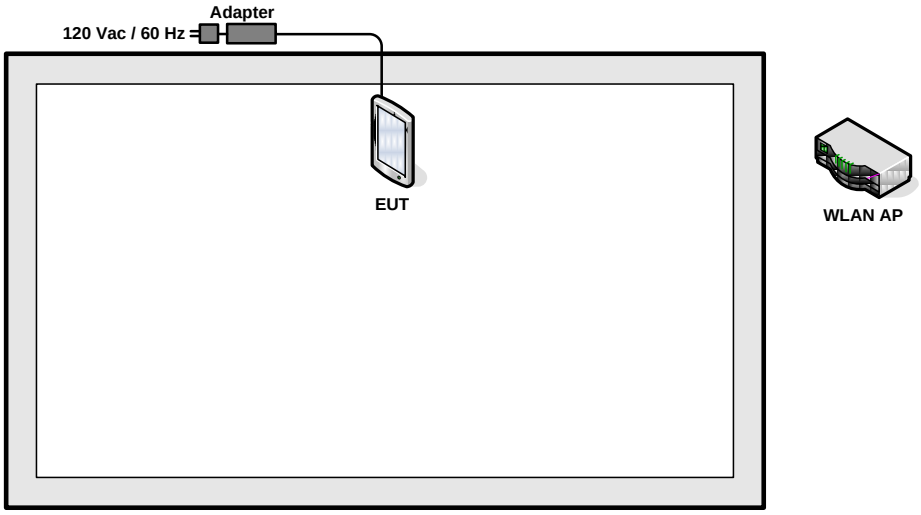
Test Cases	
Test Item	**802.11b (Modulation : DSSS)** **802.11g/n (Modulation : OFDM)**
Conducted TCs	Mode 1 : 802.11b CH01_2412 MHz Mode 2 : 802.11b CH06_2437 MHz Mode 3 : 802.11b CH11_2462 MHz Mode 4 : 802.11g_CH01_2412 MHz Mode 5 : 802.11g_CH06_2437 MHz Mode 6 : 802.11g_CH11_2462 MHz Mode 7 : 802.11n (BW 20M)_CH01_2412 MHz Mode 8 : 802.11n (BW 20M)_CH06_2437 MHz Mode 9 : 802.11n (BW 20M)_CH11_2462 MHz
Radiated TCs	Mode 1 : 802.11b CH01_2412 MHz Mode 2 : 802.11b CH06_2437 MHz Mode 3 : 802.11b CH11_2462 MHz Mode 4 : 802.11g_CH01_2412 MHz Mode 5 : 802.11g_CH06_2437 MHz Mode 6 : 802.11g_CH11_2462 MHz Mode 7 : 802.11n (BW 20M)_CH01_2412 MHz Mode 8 : 802.11n (BW 20M)_CH06_2437 MHz Mode 9 : 802.11n (BW 20M)_CH11_2462 MHz
AC Conducted Emission	Mode 1 :EUT + E-Link + Adapter Mode 2 :EUT + WLAN Link + Adapter
Remark: 1. The worst case of conducted emission is mode 2; only the test data of it was reported. 2. The worst case of radiated emission plane is X plane.	

2.3 Connection Diagram of Test System

<EUT with Adapter Mode>



<EUT with Adapter in WLAN Link Mode>



2.4 RF Utility

The programmed RF utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing.

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

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

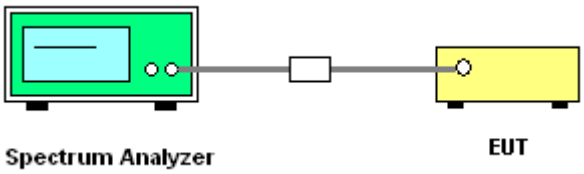
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

3.1.4 Test Setup

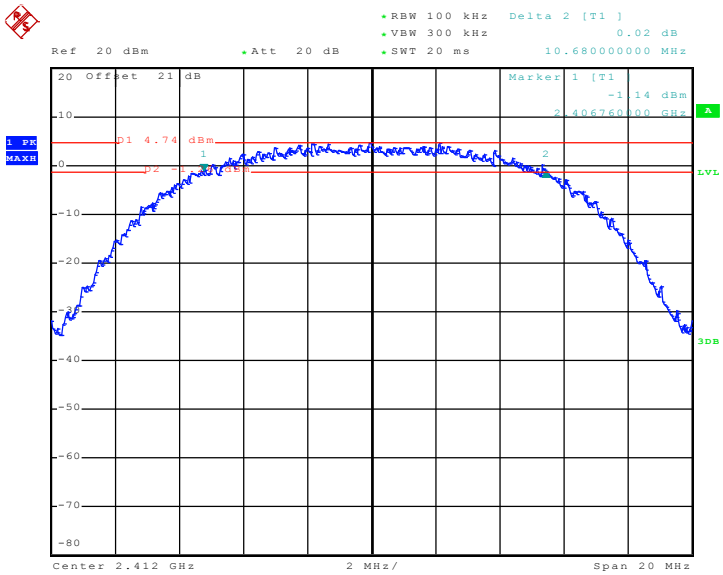


3.1.5 Test Result of 6dB Bandwidth

Test Mode :	Mode 1, 2, 3	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

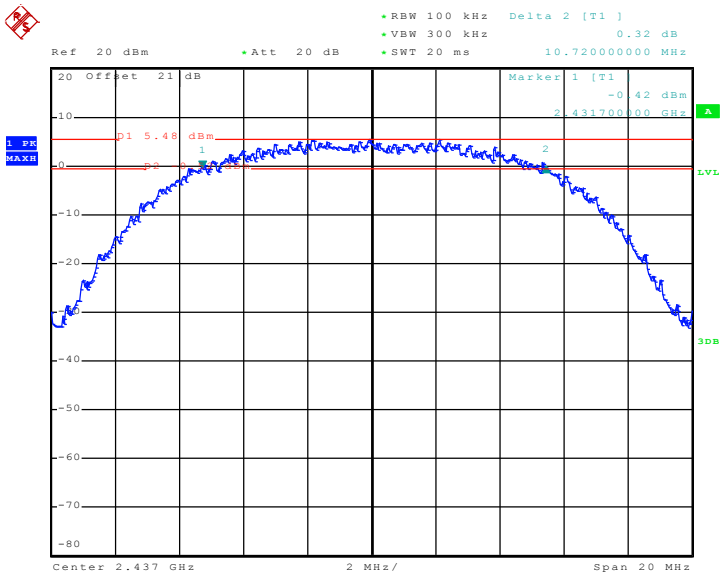
Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	10.68	0.5	Pass
06	2437	10.72	0.5	Pass
11	2462	10.76	0.5	Pass

Mode 1 : 6 dB Bandwidth Plot on 802.11b Channel 01



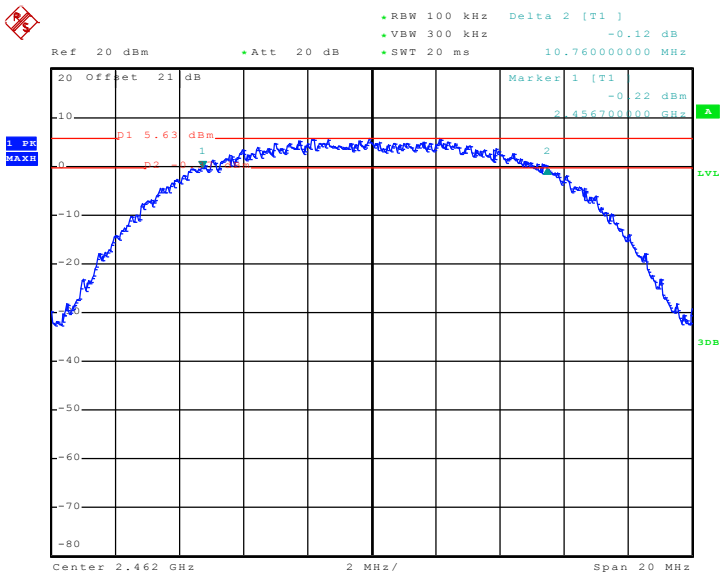
Date: 14.MAR.2011 14:32:45

Mode 2 : 6 dB Bandwidth Plot on 802.11b Channel 06



Date: 14.MAR.2011 14:46:09

Mode 3 : 6 dB Bandwidth Plot on 802.11b Channel 11

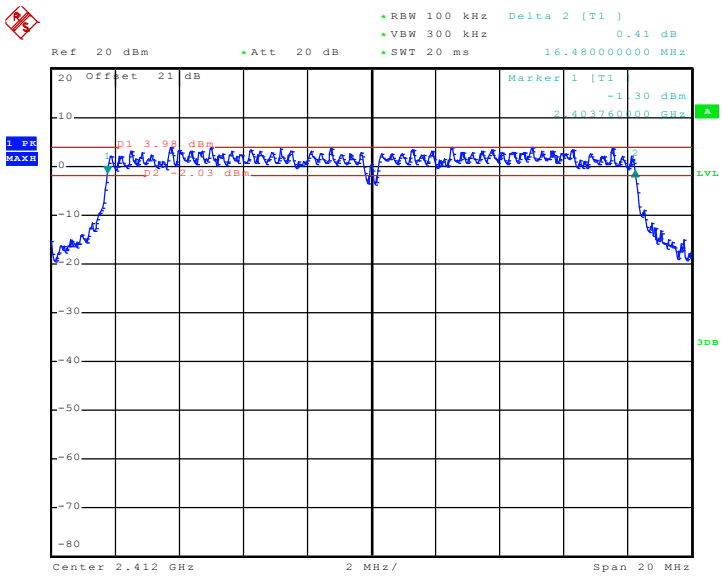


Date: 14.MAR.2011 14:58:16

Test Mode :	Mode 4, 5, 6	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

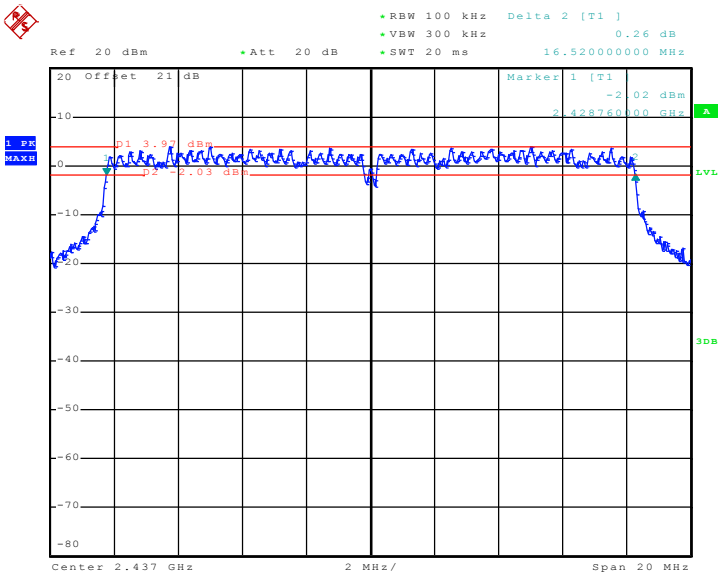
Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	16.48	0.5	Pass
06	2437	16.52	0.5	Pass
11	2462	16.48	0.5	Pass

Mode 4 : 6 dB Bandwidth Plot on 802.11g Channel 01



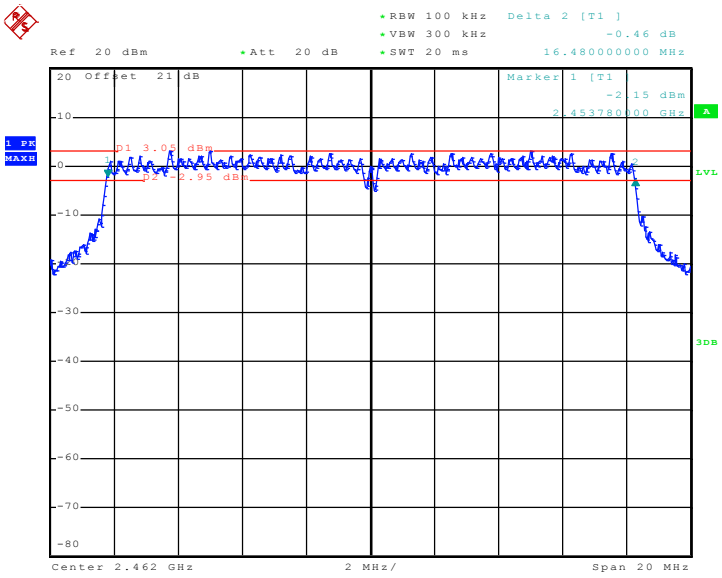
Date: 14.MAR.2011 15:12:10

Mode 5 : 6 dB Bandwidth Plot on 802.11g Channel 06



Date: 14.MAR.2011 15:31:40

Mode 6 : 6 dB Bandwidth Plot on 802.11g Channel 11

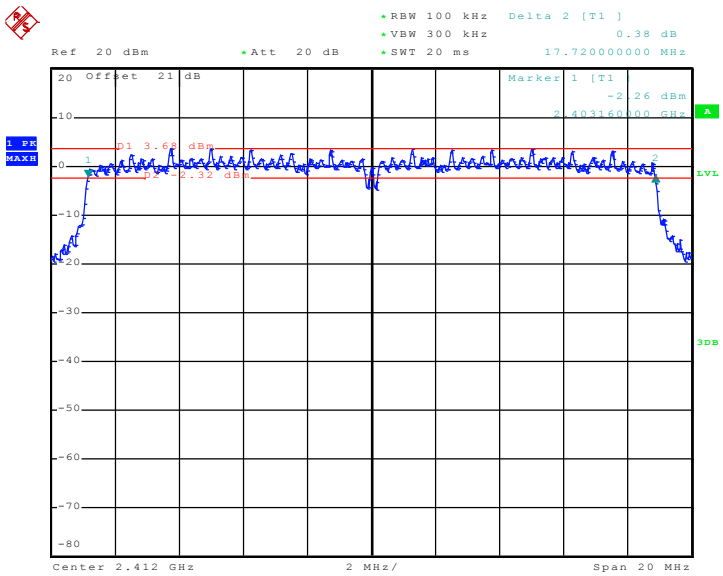


Date: 14.MAR.2011 15:43:25

Test Mode :	Mode 7, 8, 9	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

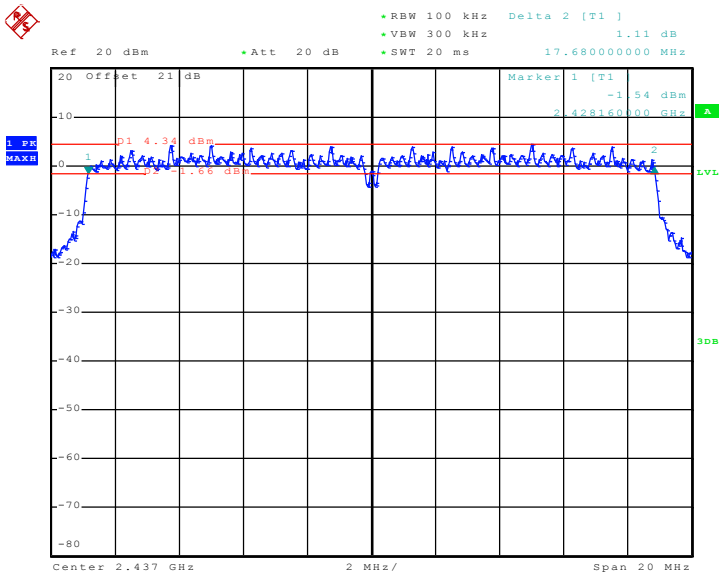
Channel	Frequency (MHz)	802.11n (BW 20MHz) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	17.72	0.5	Pass
06	2437	17.68	0.5	Pass
11	2462	17.64	0.5	Pass

Mode 7 : 6 dB Bandwidth Plot on 802.11n(BW 20MHz) Channel 01

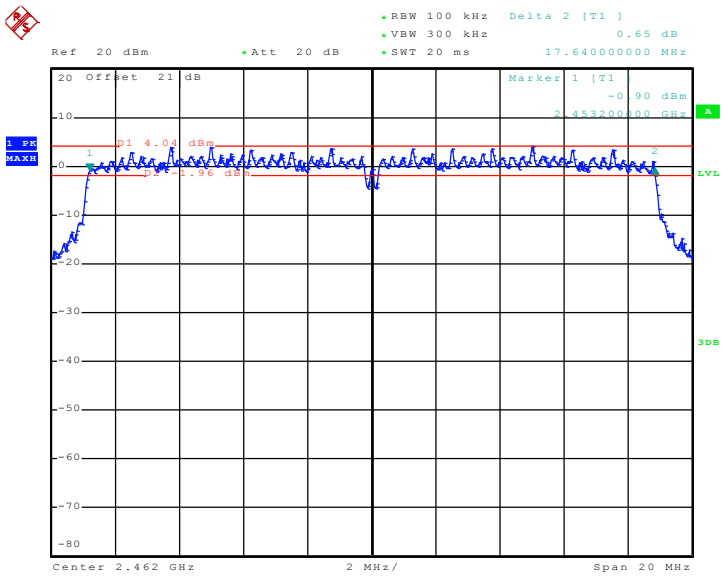


Date: 14.MAR.2011 15:56:33

Mode 8 : 6 dB Bandwidth Plot on 802.11n(BW 20MHz) Channel 06



Mode 9 : 6 dB Bandwidth Plot on 802.11n(BW 20MHz) Channel 11



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.

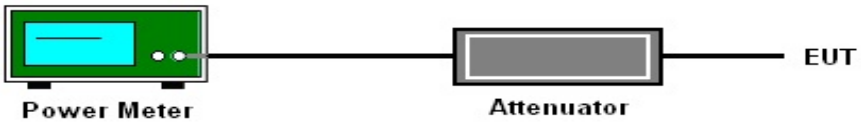
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the power meter by a low loss cable.
3. Measure the power by power meter.

3.2.4 Test Setup



3.2.5 Test Result of Output Power

Test Mode :	Mode 1, 2, 3	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

Channel	Frequency (MHz)	802.11b Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	17.0	30	Pass
06	2437	17.2	30	Pass
11	2462	17.2	30	Pass

Test Mode :	Mode 4, 5, 6	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

Channel	Frequency (MHz)	802.11g Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	23.3	30	Pass
06	2437	23.7	30	Pass
11	2462	23.7	30	Pass

Test Mode :	Mode 7, 8, 9	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

Channel	Frequency (MHz)	802.11n (BW 20MHz) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	20.2	30	Pass
06	2437	20.2	30	Pass
11	2462	20.5	30	Pass

3.3 Band Edges Measurement

3.3.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. 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.

3.3.2 Measuring Instruments

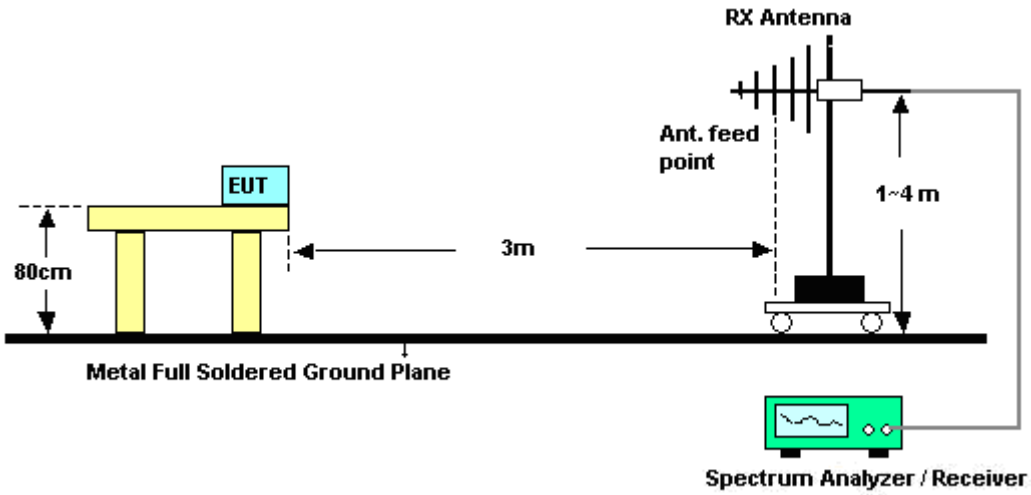
See list of measuring instruments of this test report.

3.3.3 Test Procedures

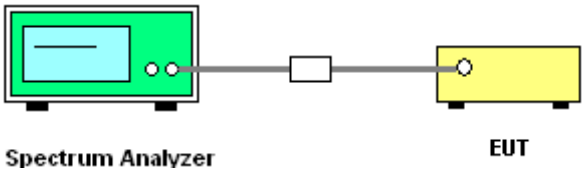
1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) ≥ RBW. Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the device complies with the use of power option 2 the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Apply to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep=Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation as in FCC Section 15.35(b) and (c).

3.3.4 Test Setup

<Radiated Band Edges>



<Conducted Band Edges>



3.3.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	**Temperature :**	23~24℃
Test Band :	802.11b	**Relative Humidity :**	46~47%
Test Channel :	01	**Test Engineer :**	Kai Wang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2384.86	49.21	-24.79	74	44.87	32.16	6.03	33.85	198	129	Peak
2384.86	38.48	-15.52	54	34.14	32.16	6.03	33.85	198	129	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.42	53.18	-20.82	74	48.82	32.18	6.03	33.85	100	354	Peak
2389.42	41.81	-12.19	54	37.45	32.18	6.03	33.85	100	354	Average

Test Mode :	Mode 3	**Temperature :**	23~24℃
Test Band :	802.11b	**Relative Humidity :**	46~47%
Test Channel :	11	**Test Engineer :**	Kai Wang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2488.41	54.87	-19.13	74	50.29	32.3	6.18	33.9	199	127	Peak
2488.41	44.69	-9.31	54	40.11	32.3	6.18	33.9	199	127	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2489.74	58.09	-15.91	74	53.51	32.3	6.18	33.9	100	358	Peak
2489.74	48.32	-5.68	54	43.74	32.3	6.18	33.9	100	358	Average

Test Mode :	Mode 4	**Temperature :**	23~24℃
Test Band :	802.11g	**Relative Humidity :**	46~47%
Test Channel :	01	**Test Engineer :**	Kai Wang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2382.01	63.93	-10.07	74	59.59	32.16	6.03	33.85	197	125	Peak
2382.01	44	-10	54	39.66	32.16	6.03	33.85	197	125	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	67.83	-6.17	74	63.47	32.18	6.03	33.85	158	355	Peak
2389.99	48.39	-5.61	54	44.03	32.18	6.03	33.85	158	355	Average

Test Mode :	Mode 6	**Temperature :**	23~24℃
Test Band :	802.11g	**Relative Humidity :**	46~47%
Test Channel :	11	**Test Engineer :**	Kai Wang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	71.37	-2.63	74	66.81	32.28	6.18	33.9	199	126	Peak
2483.5	49.43	-4.57	54	44.87	32.28	6.18	33.9	199	126	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	73.49	-0.51	74	68.93	32.28	6.18	33.9	100	356	Peak
2483.5	52.27	-1.73	54	47.71	32.28	6.18	33.9	100	356	Average

Test Mode :	Mode 7	**Temperature :**	23~24℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	46~47%
Test Channel :	01	**Test Engineer :**	Kai Wang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2384.29	62.84	-11.16	74	58.5	32.16	6.03	33.85	198	125	Peak
2384.29	44.91	-9.09	54	40.57	32.16	6.03	33.85	198	125	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	71.71	-2.29	74	67.35	32.18	6.03	33.85	100	3	Peak
2389.99	53.44	-0.56	54	49.08	32.18	6.03	33.85	100	3	Average

Test Mode :	Mode 9	**Temperature :**	23~24℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	46~47%
Test Channel :	11	**Test Engineer :**	Kai Wang

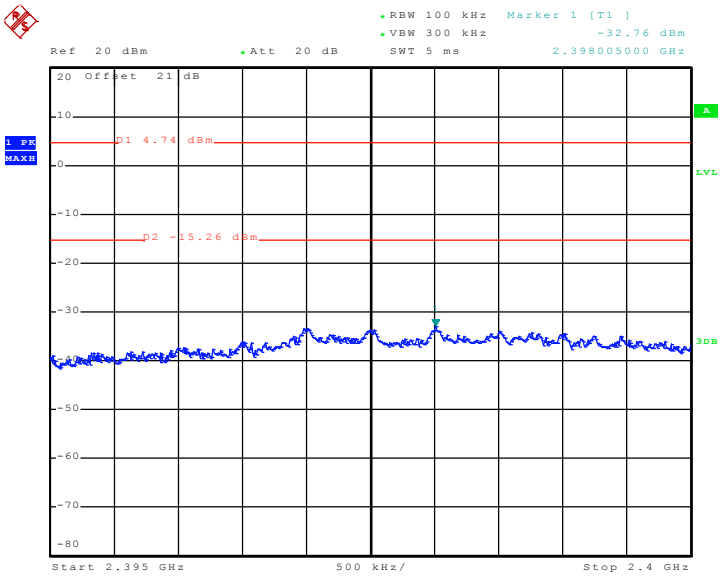
ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	69.18	-4.82	74	64.62	32.28	6.18	33.9	198	128	Peak
2483.85	50.8	-3.2	54	46.24	32.28	6.18	33.9	198	128	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	72	-2	74	67.44	32.28	6.18	33.9	100	355	Peak
2483.66	53.32	-0.68	54	48.76	32.28	6.18	33.9	100	355	Average

3.3.6 Test Plots of Conducted Band Edges

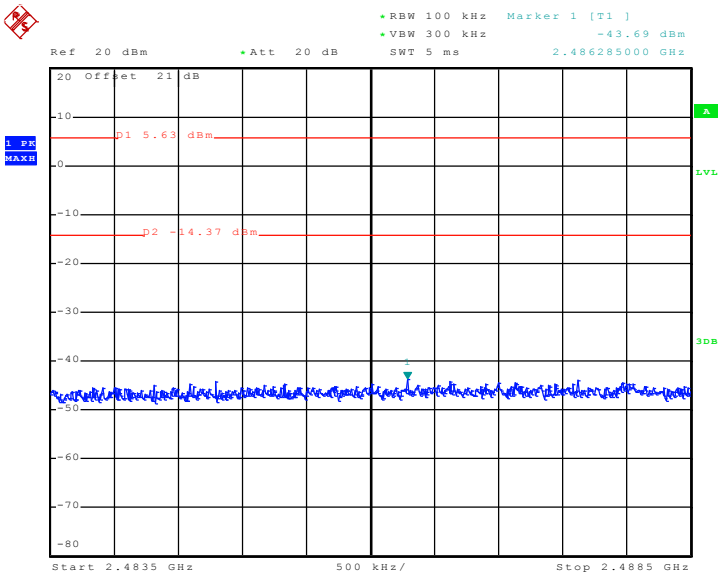
Test Mode :	Mode 1 and 3	**Temperature :**	24~26℃
Test Band :	802.11b	**Relative Humidity :**	40~44%
Test Channel :	01 and 11	**Test Engineer :**	Phoenix Chen

Low Band Edge Plot on 802.11b Channel 01



Date: 14.MAR.2011 14:33:53

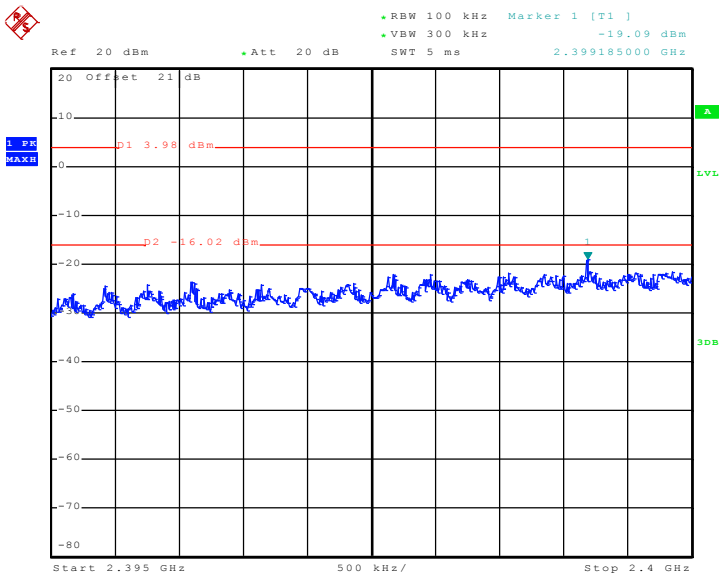
High Band Edge Plot on 802.11b Channel 11



Date: 14.MAR.2011 14:59:02

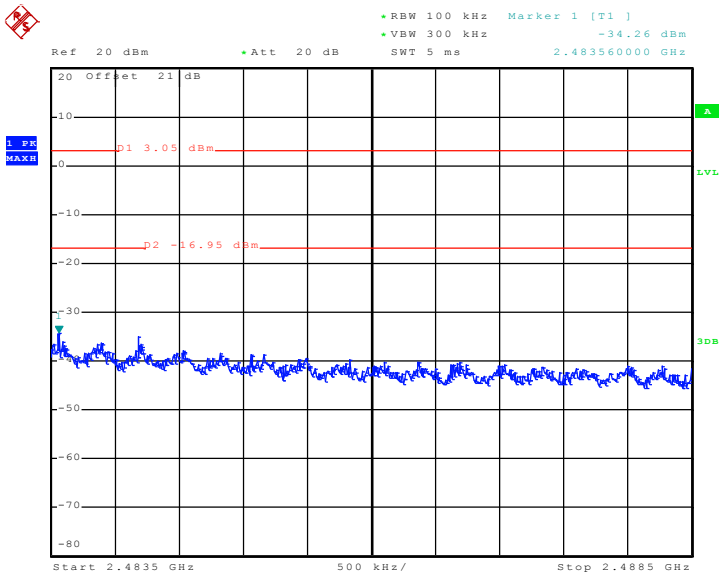
Test Mode :	Mode 4 and 6	**Temperature :**	24~26℃
Test Band :	802.11g	**Relative Humidity :**	40~44%
Test Channel :	01 and 11	**Test Engineer :**	Phoenix Chen

Low Band Edge Plot on 802.11g Channel 01



Date: 14.MAR.2011 15:13:18

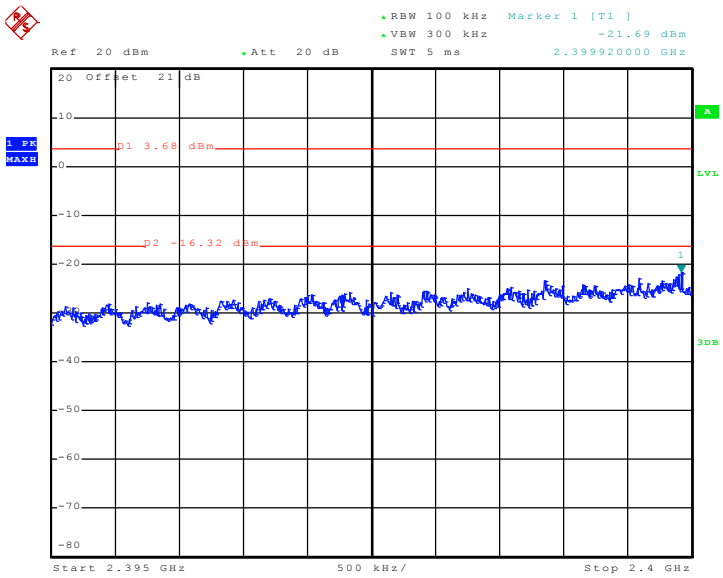
High Band Edge Plot on 802.11g Channel 11



Date: 14.MAR.2011 15:44:12

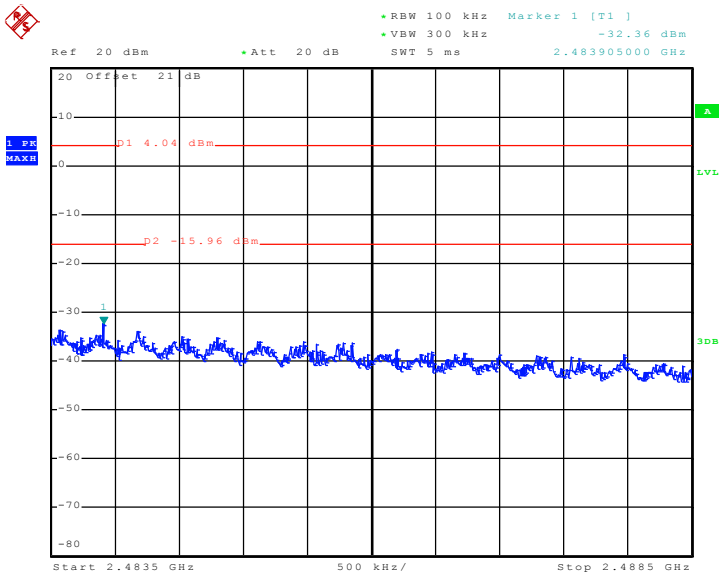
Test Mode :	Mode 7 and 9	**Temperature :**	24~26℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	40~44%
Test Channel :	01 and 11	**Test Engineer :**	Phoenix Chen

Low Band Edge Plot on 802.11n (BW 20MHz) Channel 01



Date: 14.MAR.2011 15:57:41

High Band Edge Plot on 802.11n (BW 20MHz) Channel 11



Date: 14.MAR.2011 16:24:05

3.4 Spurious Emission Measurement

3.4.1 Limit of Spurious Emission Measurement

All harmonics/spurious must be at least 20 dB down from the highest emission level within the authorized band.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedure

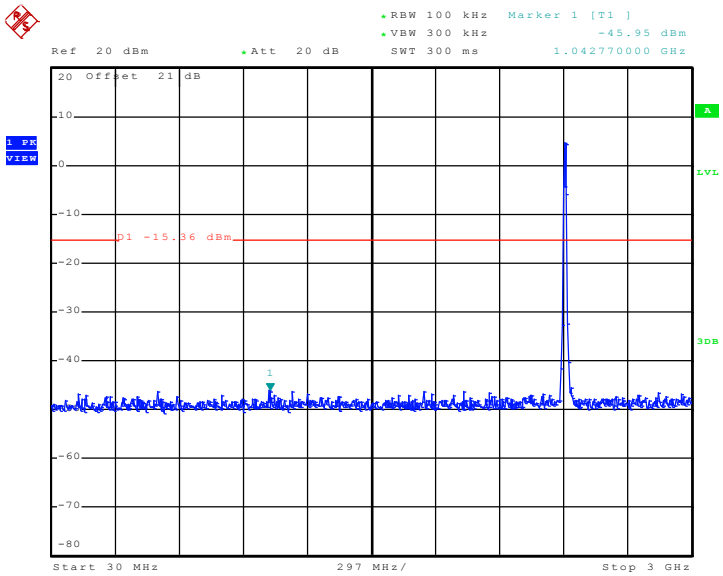
1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set RBW = 100 kHz, Video bandwidth (VBW) ≥ RBW, scan up through 10th harmonic. All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

3.4.4 Test Setup

3.4.5 Test Plots of Spurious Emission

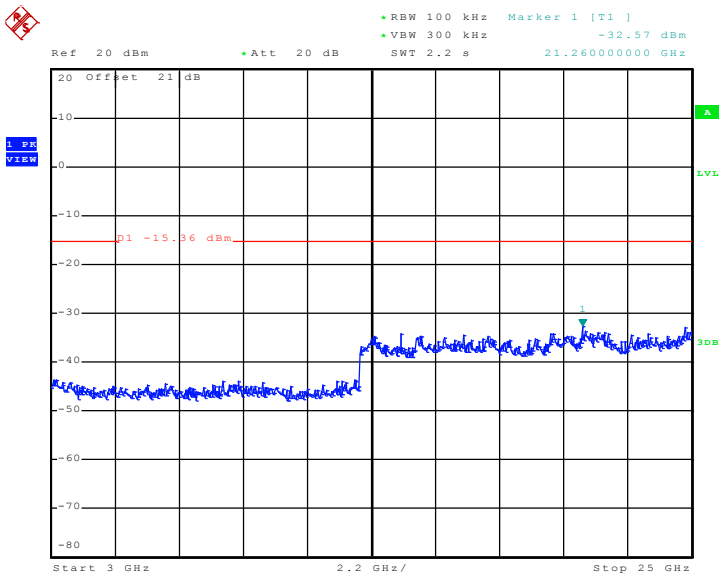
Test Mode :	Mode 1	**Temperature :**	24~26℃
Test Band :	802.11b	**Relative Humidity :**	40~44%
Test Channel :	01	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 14:43:19

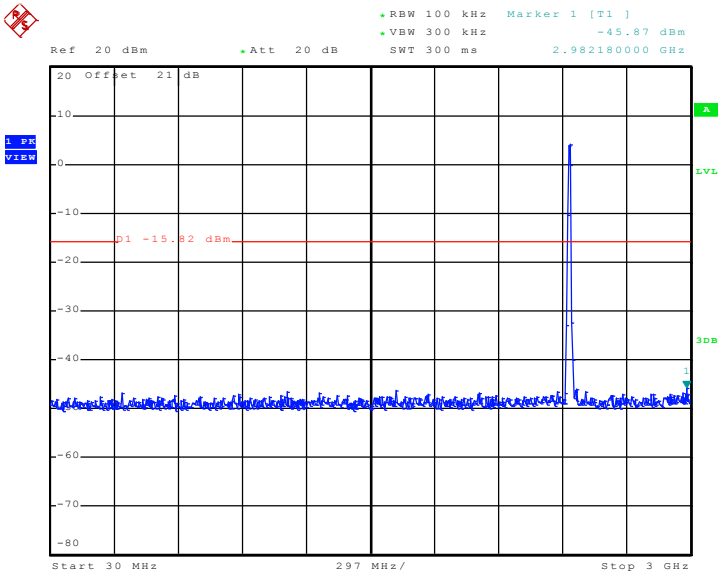
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 14:43:36

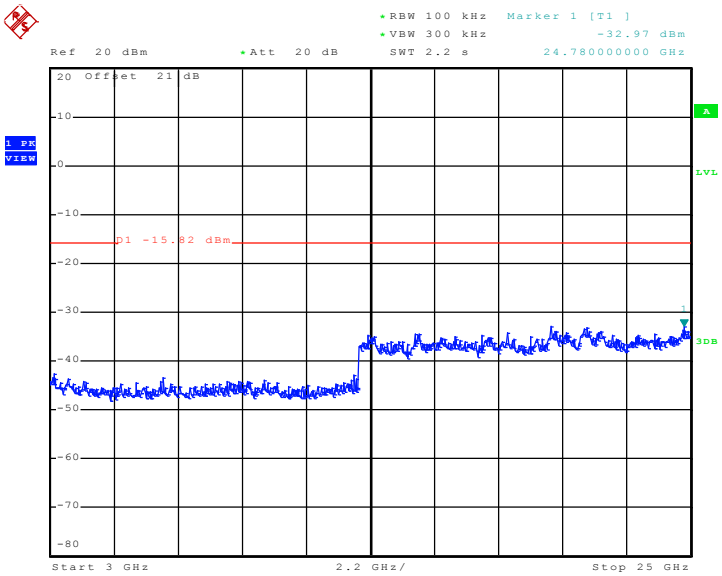
Test Mode :	Mode 2	**Temperature :**	24~26℃
Test Band :	802.11b	**Relative Humidity :**	40~44%
Test Channel :	06	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 14:55:42

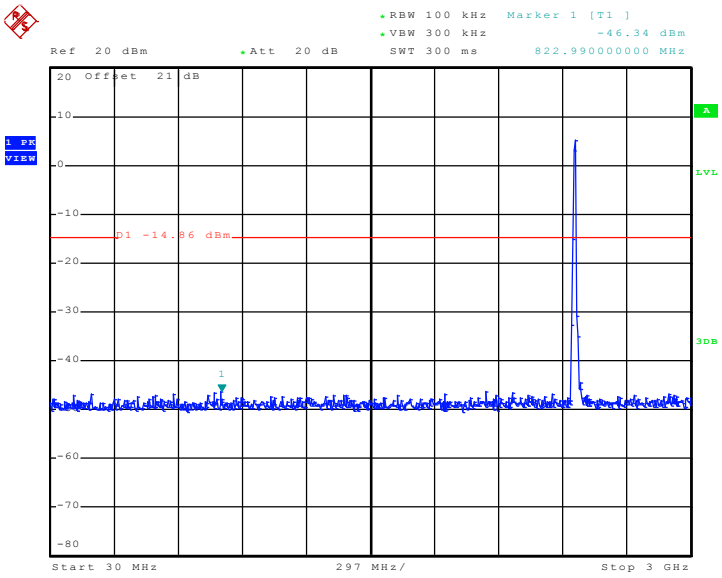
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 14:55:59

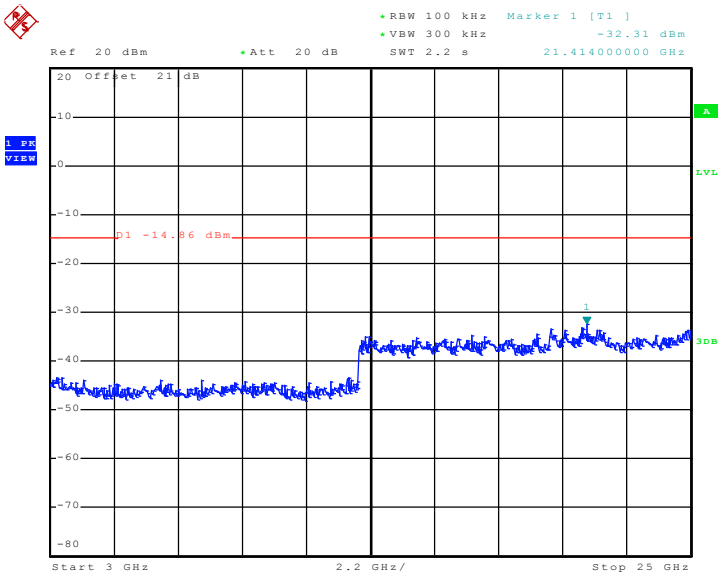
Test Mode :	Mode 3	**Temperature :**	24~26℃
Test Band :	802.11b	**Relative Humidity :**	40~44%
Test Channel :	11	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 15:08:25

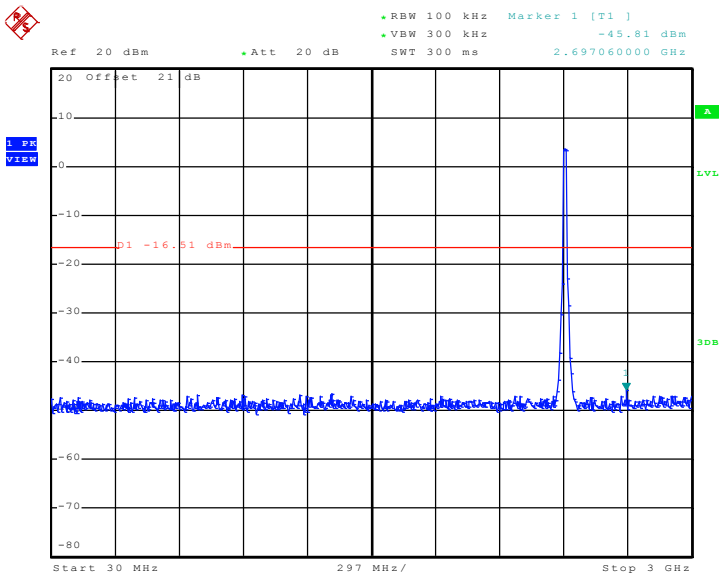
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 15:08:42

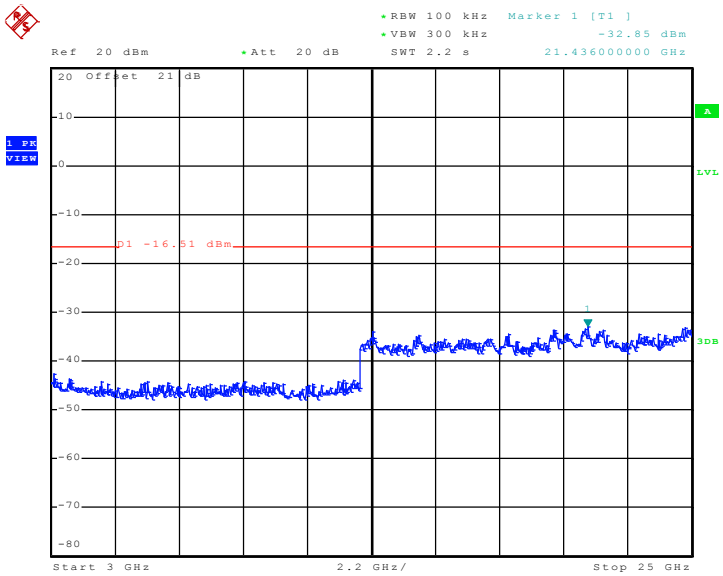
Test Mode :	Mode 4	**Temperature :**	24~26℃
Test Band :	802.11g	**Relative Humidity :**	40~44%
Test Channel :	01	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 15:29:01

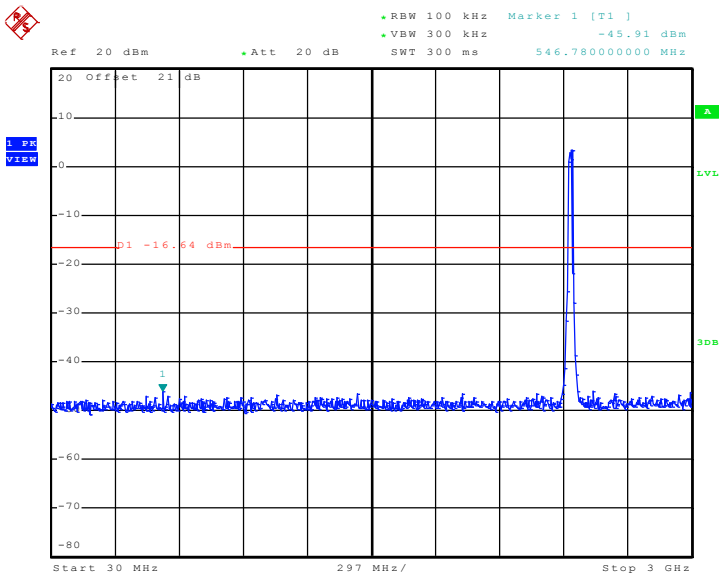
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 15:29:18

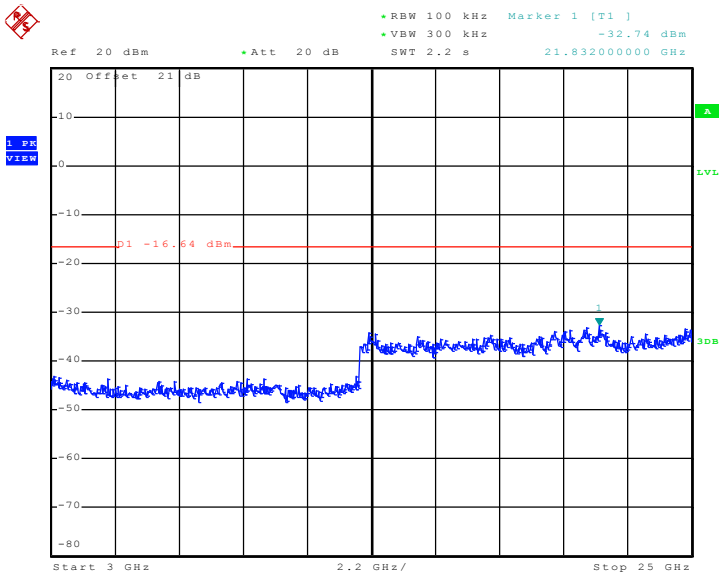
Test Mode :	Mode 5	**Temperature :**	24~26
Test Band :	802.11g	**Relative Humidity :**	40~44
Test Channel :	06	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 15:41:10

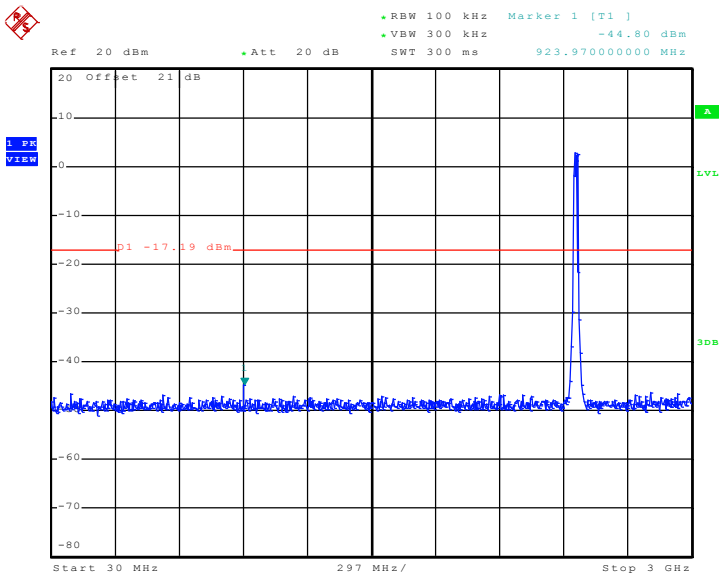
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 15:41:27

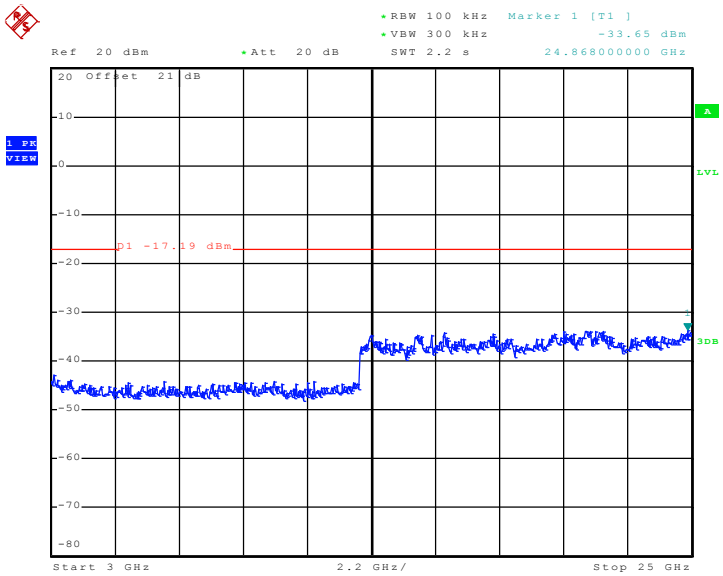
Test Mode :	Mode 6	**Temperature :**	24~26℃
Test Band :	802.11g	**Relative Humidity :**	40~44%
Test Channel :	11	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 15:53:32

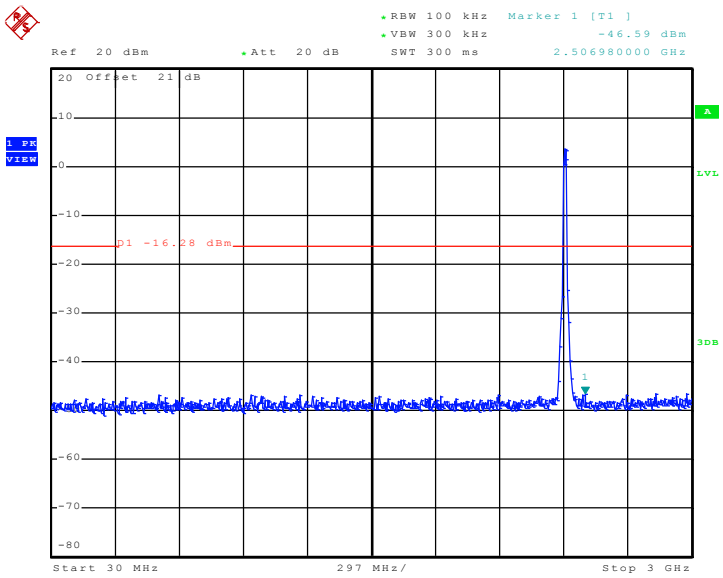
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 15:53:49

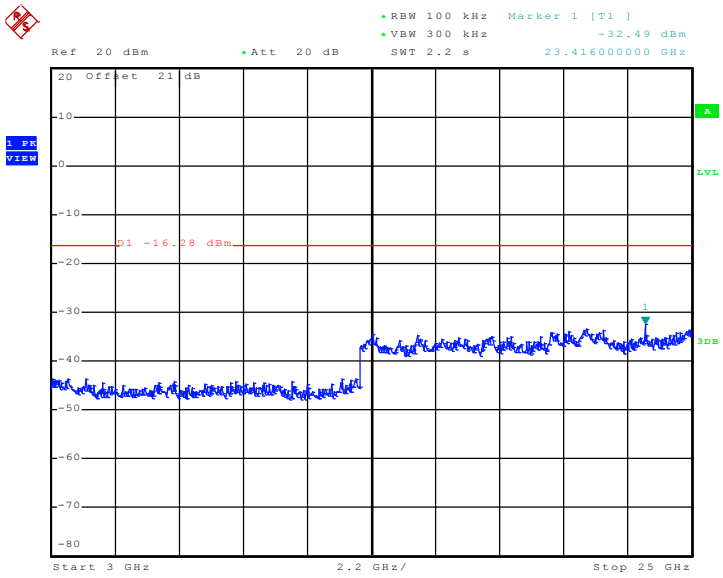
Test Mode :	Mode 7	**Temperature :**	24~26℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	40~44%
Test Channel :	01	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 16:07:02

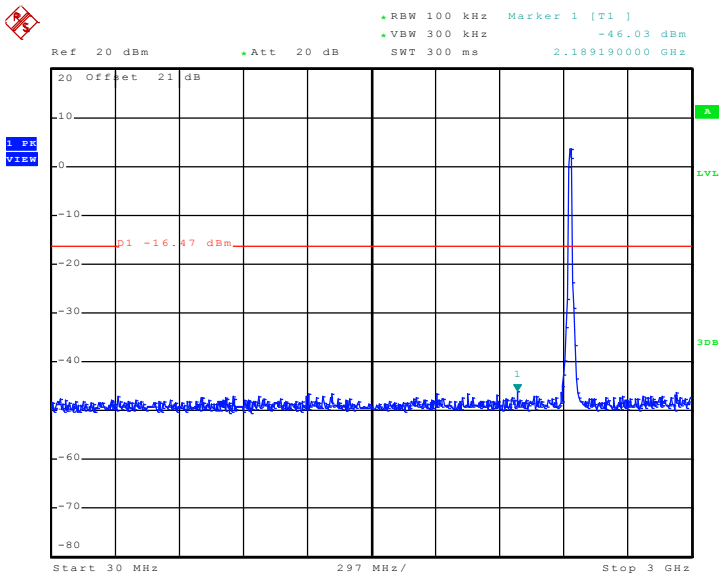
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 16:07:19

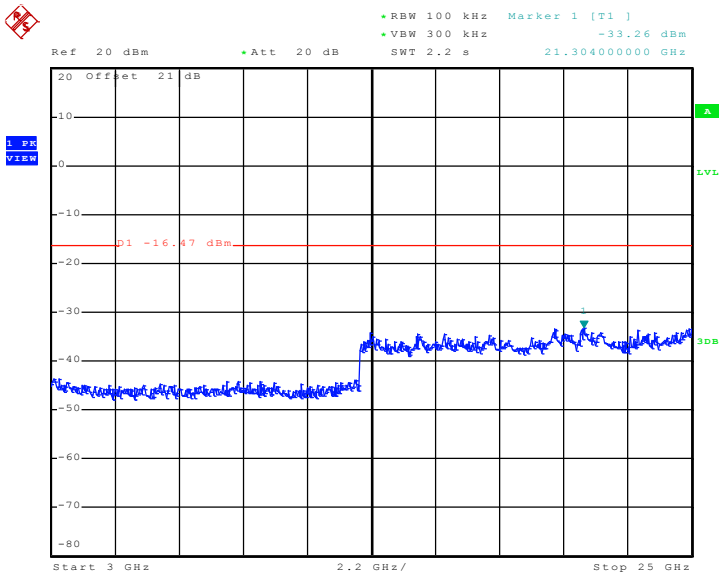
Test Mode :	Mode 8	**Temperature :**	24~26℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	40~44%
Test Channel :	06	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 16:20:53

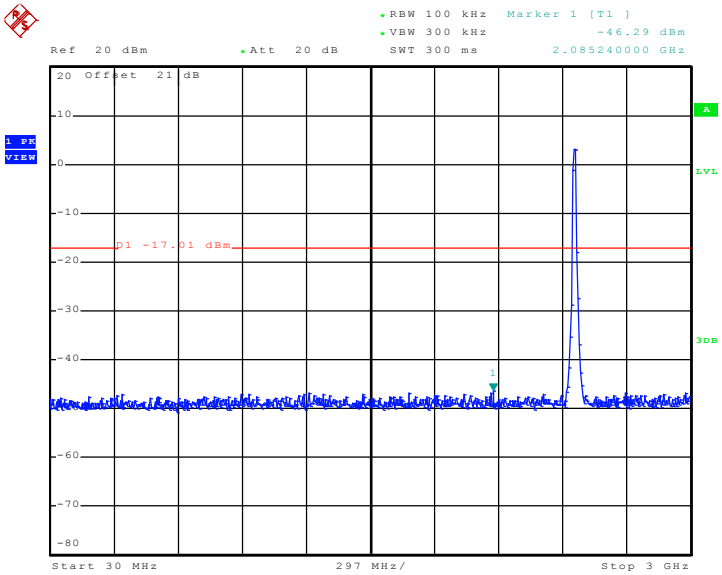
Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 16:21:09

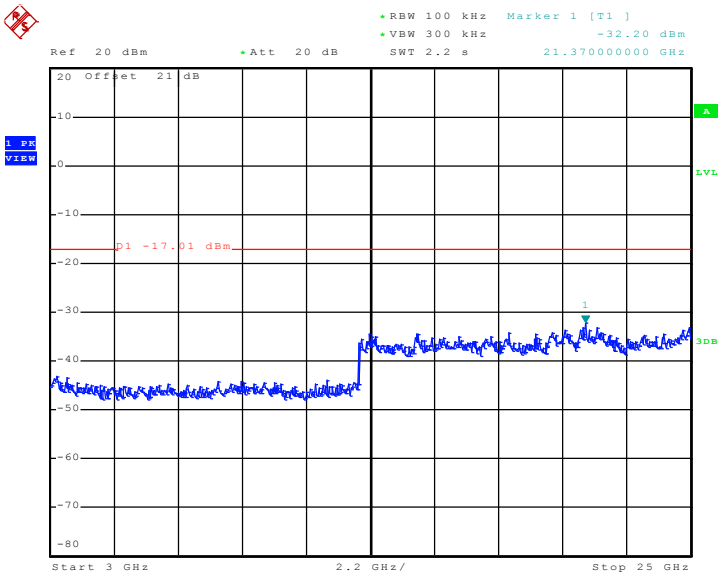
Test Mode :	Mode 9	**Temperature :**	24~26℃
Test Band :	802.11n (BW 20MHz)	**Relative Humidity :**	40~44%
Test Channel :	11	**Test Engineer :**	Phoenix Chen

Conducted Spurious Emission Plot between 30MHz ~ 3 GHz



Date: 14.MAR.2011 16:33:35

Conducted Spurious Emission Plot between 3 GHz ~ 25 GHz



Date: 14.MAR.2011 16:33:52

3.5 Power Spectral Density Measurement

3.5.1 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.

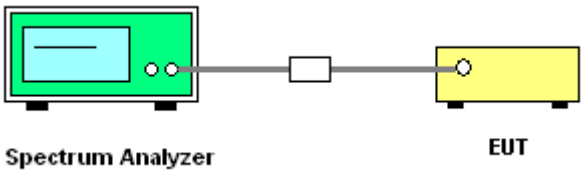
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The test follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Take the measured data from spectrum analyzer.

3.5.4 Test Setup

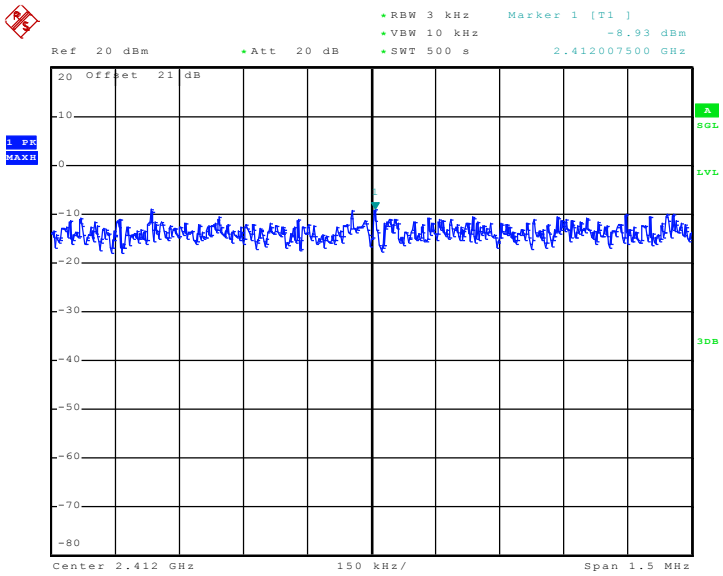


3.5.5 Test Result of Power Spectral Density

Test Mode :	Mode 1, 2, 3	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

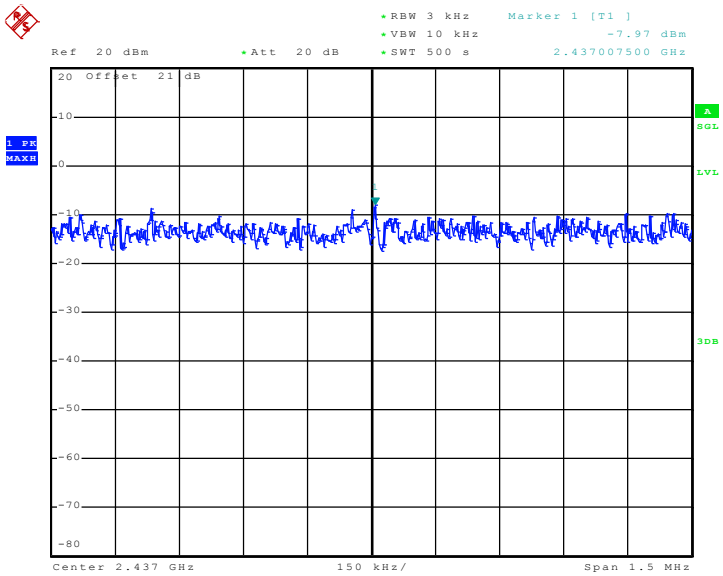
Channel	Frequency (MHz)	802.11b Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-8.93	8	Pass
06	2437	-7.97	8	Pass
11	2462	-8.11	8	Pass

Mode 1 : PSD Plot on 802.11b Channel 01



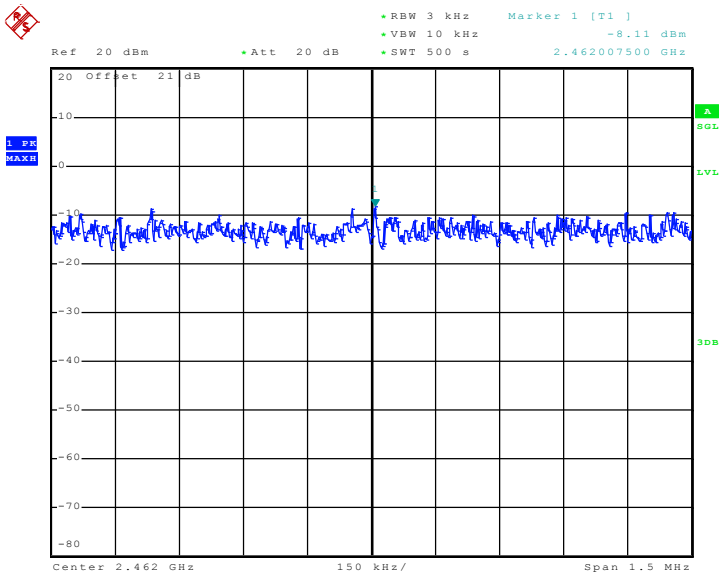
Date: 14.MAR.2011 14:42:57

Mode 2 : PSD Plot on 802.11b Channel 06



Date: 14.MAR.2011 14:55:21

Mode 3 : PSD Plot on 802.11b Channel 11

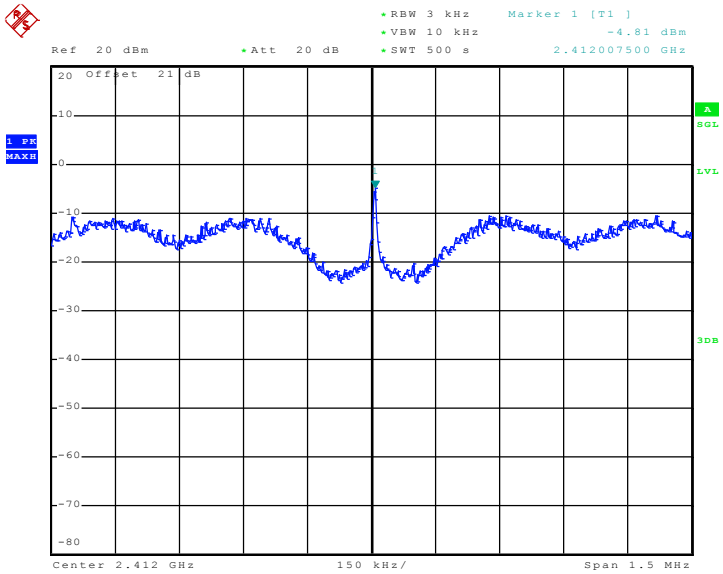


Date: 14.MAR.2011 15:08:05

Test Mode :	Mode 4, 5, 6	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

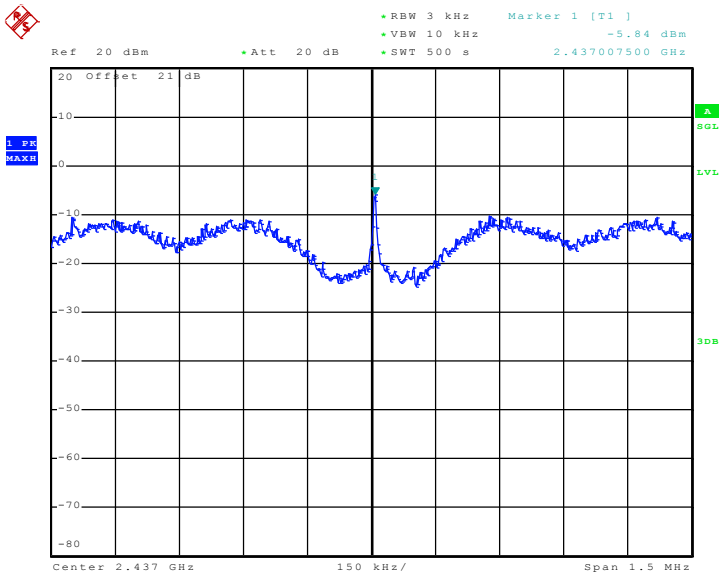
Channel	Frequency (MHz)	802.11g Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-4.81	8	Pass
06	2437	-5.84	8	Pass
11	2462	-4.29	8	Pass

Mode 4 : PSD Plot on 802.11g Channel 01



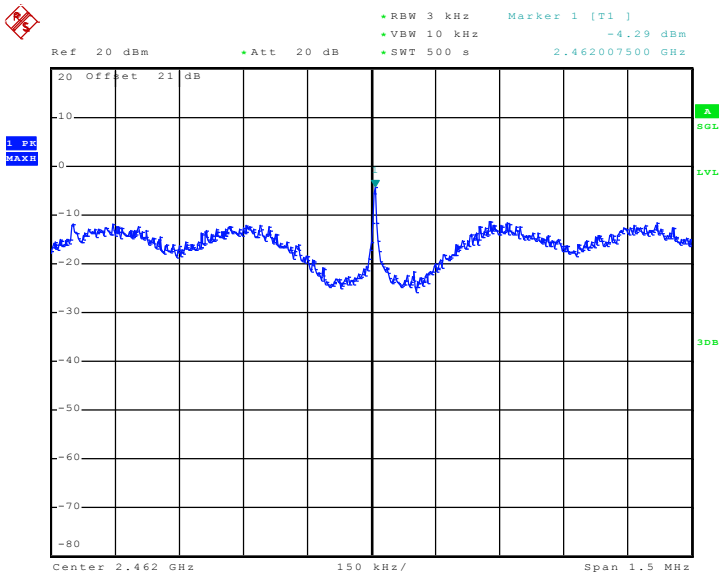
Date: 14.MAR.2011 15:28:40

Mode 5 : PSD Plot on 802.11g Channel 06



Date: 14.MAR.2011 15:40:50

Mode 6 : PSD Plot on 802.11g Channel 11

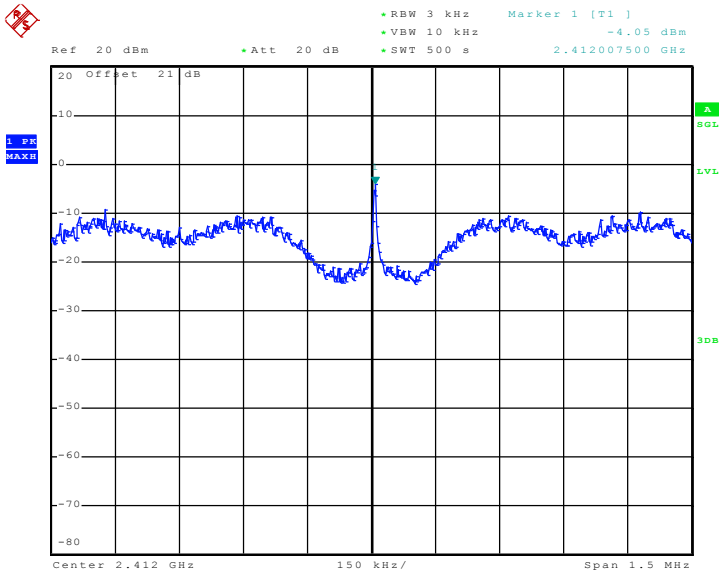


Date: 14.MAR.2011 15:53:11

Test Mode :	Mode 7, 8, 9	**Temperature :**	24~26℃
Test Engineer :	Phoenix Chen	**Relative Humidity :**	40~44%

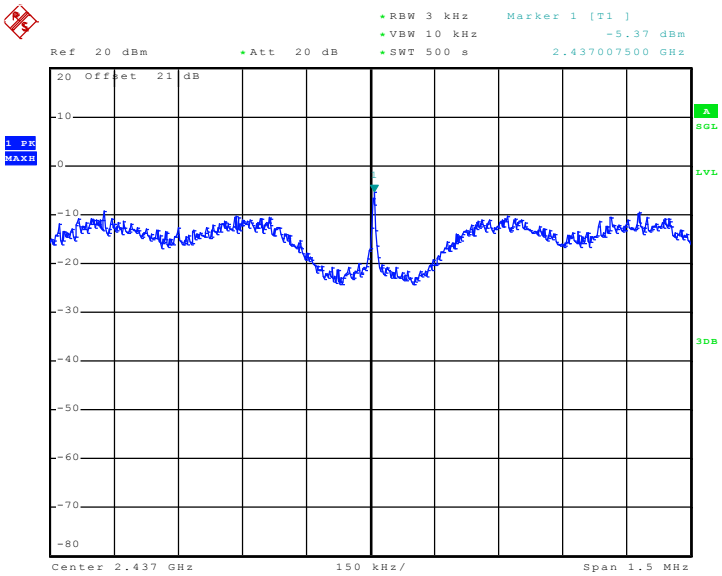
Channel	Frequency (MHz)	802.11n (BW 20MHz) Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	-4.05	8	Pass
06	2437	-5.37	8	Pass
11	2462	-4.35	8	Pass

Mode 7 : PSD Plot on 802.11n (BW 20MHz) Channel 01



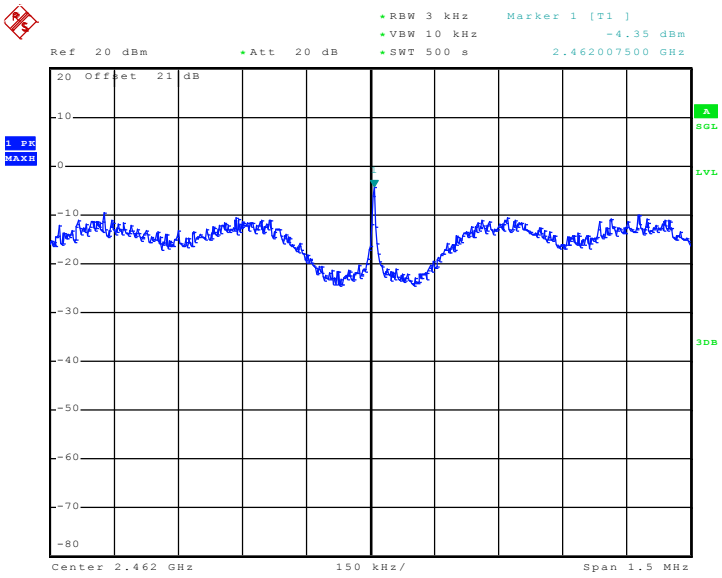
Date: 14.MAR.2011 16:06:41

Mode 8 : PSD Plot on802.11n (BW 20MHz) Channel 06



Date: 14.MAR.2011 16:19:47

Mode 9 : PSD Plot on 802.11n (BW 20MHz) Channel 11



Date: 14.MAR.2011 16:33:14

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.

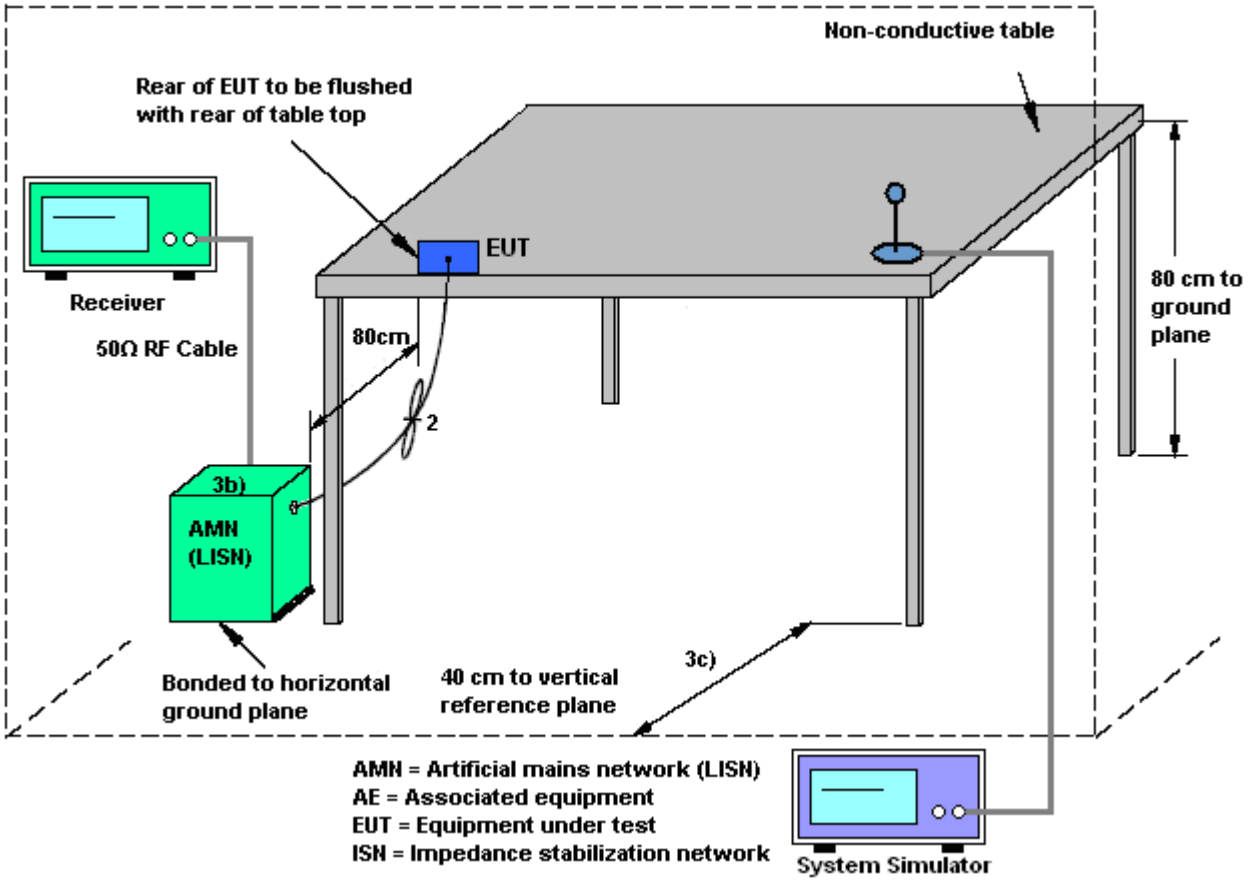
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

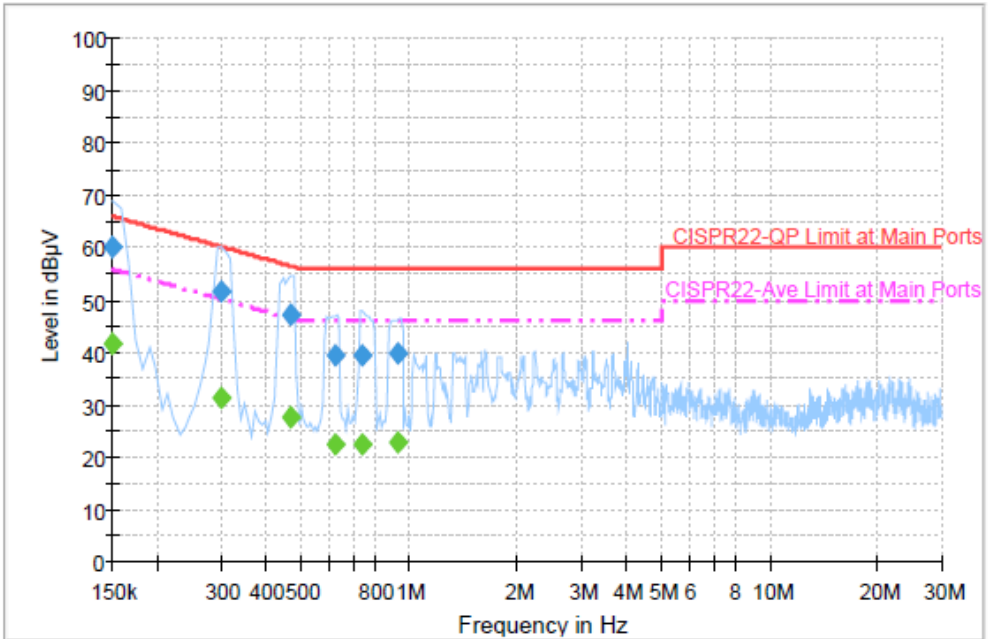
1. The testing follows the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (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 2	**Temperature :**	20~22℃
Test Engineer :	Novic Chiang	**Relative Humidity :**	40~42%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	EUT + WLAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



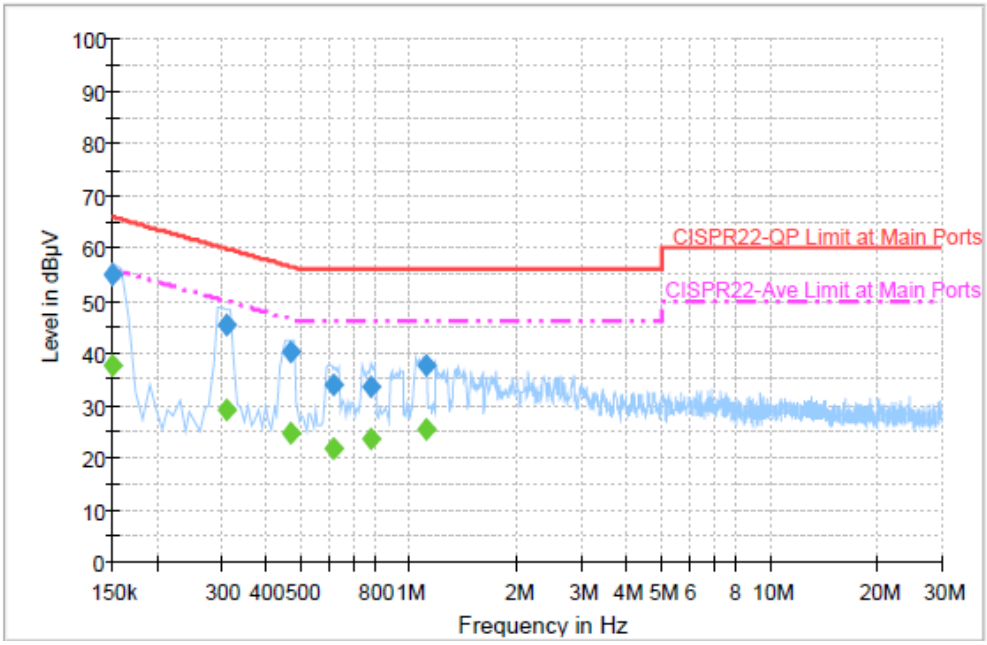
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	60.0	Off	L1	19.4	6.0	66.0
0.302000	51.7	Off	L1	19.3	8.7	60.4
0.470000	47.4	Off	L1	19.4	9.0	56.4
0.622000	39.6	Off	L1	19.4	16.4	56.0
0.742000	39.3	Off	L1	19.4	16.7	56.0
0.926000	39.7	Off	L1	19.4	16.3	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	41.6	Off	L1	19.4	14.4	56.0
0.302000	31.4	Off	L1	19.3	19.0	50.4
0.470000	27.5	Off	L1	19.4	18.9	46.4
0.622000	22.4	Off	L1	19.4	23.6	46.0
0.742000	22.4	Off	L1	19.4	23.6	46.0
0.926000	22.8	Off	L1	19.4	23.2	46.0

Test Mode :	Mode 2	**Temperature :**	20~22℃
Test Engineer :	Novic Chiang	**Relative Humidity :**	40~42%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	EUT + WLAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	54.8	Off	N	19.4	11.2	66.0
0.310000	45.5	Off	N	19.3	14.7	60.2
0.470000	40.3	Off	N	19.4	16.1	56.4
0.614000	34.0	Off	N	19.3	22.0	56.0
0.782000	33.7	Off	N	19.4	22.3	56.0
1.118000	37.5	Off	N	19.4	18.5	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	37.8	Off	N	19.4	18.2	56.0
0.310000	29.0	Off	N	19.3	21.2	50.2
0.470000	24.7	Off	N	19.4	21.7	46.4
0.614000	21.8	Off	N	19.3	24.2	46.0
0.782000	23.6	Off	N	19.4	22.4	46.0
1.118000	25.5	Off	N	19.4	20.5	46.0

3.7 Radiated Emission Measurement

3.7.1 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

3.7.2 Measuring Instruments

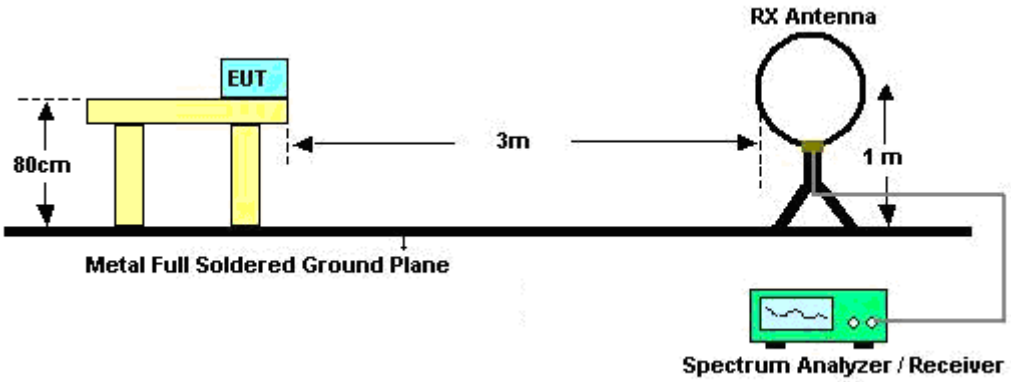
See list of measuring instruments of this test report.

3.7.3 Test Procedures

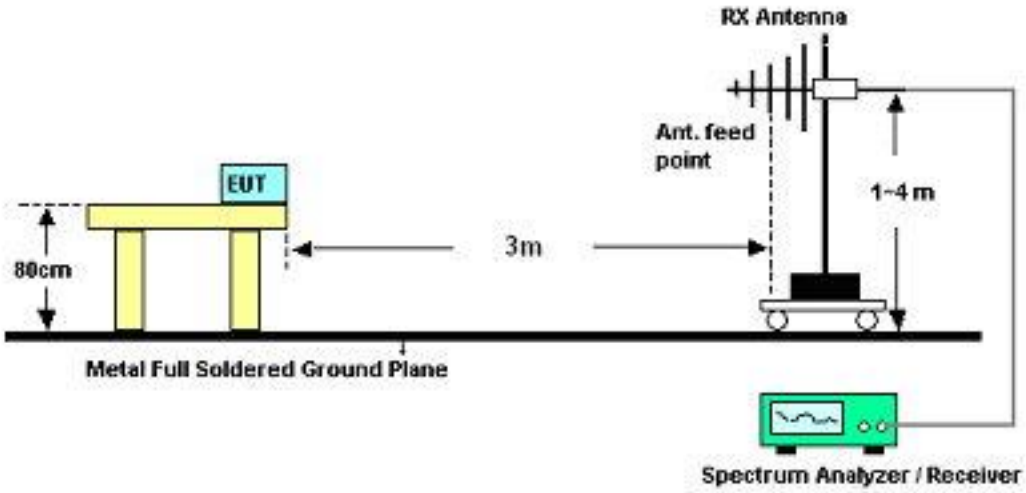
1. The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Use the following spectrum analyzer settings:
   (1) Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
   (2) Above 18 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
   Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB)
3. Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

3.7.4 Test Setup

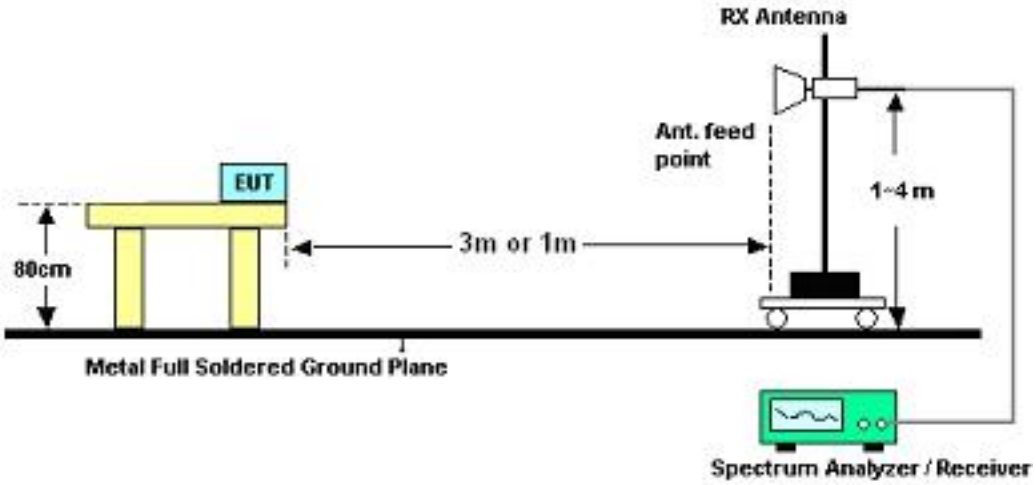
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.7.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

Test Engineer :	Kai Wang	**Temperature :**	23~24℃
		Relative Humidity :	46~47%

Frequency (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

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

Test Mode :	Mode 1	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	19.28	-20.72	40	33.7	16.51	0.53	31.46	-	-	Peak
148.53	21.78	-21.72	43.5	40.94	11.19	1.21	31.56	-	-	Peak
274.89	22.97	-23.03	46	39.63	13.06	1.64	31.36	-	-	Peak
629	20.77	-25.23	46	28.78	20.1	2.78	30.89	-	-	Peak
799.8	24.19	-21.81	46	29.26	22.47	3.14	30.68	-	-	Peak
939.8	25.95	-20.05	46	28.98	24.13	3.44	30.6	100	132	Peak
2384.86	38.48	-15.52	54	34.14	32.16	6.03	33.85	198	129	Average
2384.86	49.21	-24.79	74	44.87	32.16	6.03	33.85	198	129	Peak
2412	98.26	-	-	93.86	32.2	6.07	33.87	198	129	Average
2412	107.04	-	-	102.64	32.2	6.07	33.87	198	129	Peak
2500	45.38	-28.62	74	40.8	32.3	6.18	33.9	198	129	Peak
2500	34.12	-19.88	54	29.54	32.3	6.18	33.9	198	129	Average

Test Mode :	Mode 1	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	24.76	-15.24	40	39.18	16.51	0.53	31.46	100	172	Peak
182.82	24.29	-19.21	43.5	45.5	9.05	1.26	31.52	-	-	Peak
222.78	24.82	-21.18	46	44.08	10.75	1.44	31.45	-	-	Peak
531	19.32	-26.68	46	29.14	18.69	2.51	31.02	-	-	Peak
791.4	23.95	-22.05	46	29.17	22.33	3.13	30.68	-	-	Peak
939.8	25.87	-20.13	46	28.9	24.13	3.44	30.6	-	-	Peak
2389.42	41.81	-12.19	54	37.45	32.18	6.03	33.85	100	354	Average
2389.42	53.18	-20.82	74	48.82	32.18	6.03	33.85	100	354	Peak
2412	109.01	-	-	104.61	32.2	6.07	33.87	100	354	Peak
2412	99.93	-	-	95.53	32.2	6.07	33.87	100	354	Average
2486	35.86	-18.14	54	31.3	32.28	6.18	33.9	100	354	Average
2486	47.4	-26.6	74	42.84	32.28	6.18	33.9	100	354	Peak

Test Mode :	Mode 2	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
32.7	19.06	-20.94	40	34.17	15.8	0.56	31.47	-	-	Peak
140.97	21.59	-21.91	43.5	40.39	11.55	1.2	31.55	-	-	Peak
274.62	21.9	-24.1	46	38.56	13.06	1.64	31.36	-	-	Peak
461	19.17	-26.83	46	30.36	17.57	2.32	31.08	-	-	Peak
676.6	22.31	-23.69	46	29.63	20.63	2.89	30.84	-	-	Peak
895	25.17	-20.83	46	28.97	23.57	3.33	30.7	100	139	Peak
2356	44.84	-29.16	74	40.59	32.13	5.95	33.83	194	126	Peak
2356	32.63	-21.37	54	28.38	32.13	5.95	33.83	194	126	Average
2437	107.82	-	-	103.35	32.24	6.11	33.88	194	126	Peak
2437	98.93	-	-	94.46	32.24	6.11	33.88	194	126	Average
2484	46.4	-27.6	74	41.84	32.28	6.18	33.9	194	126	Peak
2484	34.37	-19.63	54	29.81	32.28	6.18	33.9	194	126	Average

Test Mode :	Mode 2	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	24.84	-15.16	40	39.49	16.27	0.54	31.46	100	149	Peak
53.49	21.68	-18.32	40	45.01	7.5	0.72	31.55	-	-	Peak
211.17	25.85	-17.65	43.5	46.03	9.92	1.37	31.47	-	-	Peak
531	20.33	-25.67	46	30.15	18.69	2.51	31.02	-	-	Peak
744.5	22.9	-23.1	46	28.96	21.6	3.05	30.71	-	-	Peak
906.2	26.45	-19.55	46	30.08	23.7	3.35	30.68	-	-	Peak
2388	45.77	-28.23	74	41.41	32.18	6.03	33.85	100	6	Peak
2388	33.76	-20.24	54	29.4	32.18	6.03	33.85	100	6	Average
2437	110	-	-	105.53	32.24	6.11	33.88	100	6	Peak
2437	100.95	-	-	96.48	32.24	6.11	33.88	100	6	Average
2494	47.15	-26.85	74	42.57	32.3	6.18	33.9	100	6	Peak
2494	35.51	-18.49	54	30.93	32.3	6.18	33.9	100	6	Average

Test Mode :	Mode 3	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.89	18.37	-21.63	40	33.24	16.04	0.55	31.46	-	-	Peak
149.61	21.59	-21.91	43.5	40.79	11.15	1.21	31.56	-	-	Peak
277.05	21	-25	46	37.62	13.1	1.64	31.36	-	-	Peak
592.6	20.83	-25.17	46	29.44	19.65	2.67	30.93	-	-	Peak
794.9	23.78	-22.22	46	28.94	22.39	3.13	30.68	-	-	Peak
937	25.57	-20.43	46	28.65	24.09	3.43	30.6	100	48	Peak
2382	33.47	-20.53	54	29.13	32.16	6.03	33.85	199	127	Average
2382	44.94	-29.06	74	40.6	32.16	6.03	33.85	199	127	Peak
2462	99.94	-	-	95.43	32.26	6.14	33.89	199	127	Average
2462	108.83	-	-	104.32	32.26	6.14	33.89	199	127	Peak
2488.41	44.69	-9.31	54	40.11	32.3	6.18	33.9	199	127	Average
2488.41	54.87	-19.13	74	50.29	32.3	6.18	33.9	199	127	Peak

Test Mode :	Mode 3	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	24.02	-15.98	40	38.67	16.27	0.54	31.46	100	182	Peak
204.42	24.05	-19.45	43.5	44.75	9.44	1.34	31.48	-	-	Peak
222.78	27.13	-18.87	46	46.39	10.75	1.44	31.45	-	-	Peak
584.2	22.04	-23.96	46	30.82	19.52	2.64	30.94	-	-	Peak
805.4	25.05	-20.95	46	30.05	22.53	3.15	30.68	-	-	Peak
937	25.76	-20.24	46	28.84	24.09	3.43	30.6	-	-	Peak
2388	34.24	-19.76	54	29.88	32.18	6.03	33.85	100	358	Average
2388	45.49	-28.51	74	41.13	32.18	6.03	33.85	100	358	Peak
2462	101.34	-	-	96.83	32.26	6.14	33.89	100	358	Average
2462	110.35	-	-	105.84	32.26	6.14	33.89	100	358	Peak
2489.74	48.32	-5.68	54	43.74	32.3	6.18	33.9	100	358	Average
2489.74	58.09	-15.91	74	53.51	32.3	6.18	33.9	100	358	Peak

Test Mode :	Mode 4	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.81	19.01	-20.99	40	33.66	16.27	0.54	31.46	-	-	Peak
146.37	20.42	-23.08	43.5	39.49	11.28	1.21	31.56	-	-	Peak
274.89	21.57	-24.43	46	38.23	13.06	1.64	31.36	-	-	Peak
453.3	20.41	-25.59	46	31.75	17.44	2.31	31.09	-	-	Peak
730.5	23.01	-22.99	46	29.38	21.37	3.01	30.75	-	-	Peak
937.7	25.81	-20.19	46	28.87	24.11	3.43	30.6	100	132	Peak
2382.01	44	-10	54	39.66	32.16	6.03	33.85	197	125	Average
2382.01	63.93	-10.07	74	59.59	32.16	6.03	33.85	197	125	Peak
2412	105.88	-	-	101.48	32.2	6.07	33.87	197	125	Peak
2412	89.04	-	-	84.64	32.2	6.07	33.87	197	125	Average
2500	33.5	-20.5	54	28.92	32.3	6.18	33.9	197	125	Average
2500	45.1	-28.9	74	40.52	32.3	6.18	33.9	197	125	Peak

Test Mode :	Mode 4	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	23.8	-16.2	40	38.45	16.27	0.54	31.46	100	128	Peak
139.62	21.13	-22.37	43.5	39.88	11.6	1.2	31.55	-	-	Peak
255.45	25.81	-20.19	46	42.92	12.75	1.56	31.42	-	-	Peak
316.1	21.61	-24.39	46	37.16	13.97	1.8	31.32	-	-	Peak
775.3	23.78	-22.22	46	29.3	22.07	3.1	30.69	-	-	Peak
934.9	26.1	-19.9	46	29.22	24.07	3.42	30.61	-	-	Peak
2389.99	48.39	-5.61	54	44.03	32.18	6.03	33.85	158	355	Average
2389.99	67.83	-6.17	74	63.47	32.18	6.03	33.85	158	355	Peak
2412	108.59	-	-	104.19	32.2	6.07	33.87	158	355	Peak
2412	91.07	-	-	86.67	32.2	6.07	33.87	158	355	Average
2486	34.24	-19.76	54	29.68	32.28	6.18	33.9	158	355	Average
2486	46.4	-27.6	74	41.84	32.28	6.18	33.9	158	355	Peak

Test Mode :	Mode 5	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
34.86	18.35	-21.65	40	33.91	15.33	0.58	31.47	-	-	Peak
150.42	20.85	-22.65	43.5	40.1	11.1	1.21	31.56	-	-	Peak
275.7	21.25	-24.75	46	37.9	13.07	1.64	31.36	-	-	Peak
433.7	19.75	-26.25	46	31.5	17.12	2.26	31.13	-	-	Peak
662.6	21.96	-24.04	46	29.48	20.47	2.87	30.86	-	-	Peak
945.4	27.04	-18.96	46	29.97	24.2	3.45	30.58	100	138	Peak
2390	48.46	-25.54	74	44.1	32.18	6.03	33.85	200	126	Peak
2390	33.6	-20.4	54	29.24	32.18	6.03	33.85	200	126	Average
2437	107.15	-	-	102.7	32.22	6.11	33.88	200	126	Peak
2437	89.57	-	-	85.1	32.24	6.11	33.88	200	126	Average
2484	49.62	-24.38	74	45.06	32.28	6.18	33.9	200	126	Peak
2484	34.72	-19.28	54	30.16	32.28	6.18	33.9	200	126	Average

Test Mode :	Mode 5	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	24.78	-15.22	40	39.2	16.51	0.53	31.46	100	96	Peak
139.62	21.66	-21.84	43.5	40.41	11.6	1.2	31.55	-	-	Peak
290.01	27.86	-18.14	46	44.18	13.31	1.69	31.32	-	-	Peak
321	24.72	-21.28	46	40.11	14.12	1.81	31.32	-	-	Peak
721.4	22.89	-23.11	46	29.44	21.23	2.99	30.77	-	-	Peak
937.7	26.27	-19.73	46	29.33	24.11	3.43	30.6	-	-	Peak
2390	50.61	-23.39	74	46.25	32.18	6.03	33.85	100	30	Peak
2390	34.03	-19.97	54	29.67	32.18	6.03	33.85	100	30	Average
2437	108.54	-	-	104.07	32.24	6.11	33.88	100	30	Peak
2437	91.12	-	-	86.65	32.24	6.11	33.88	100	30	Average
2484	54.41	-19.59	74	49.85	32.28	6.18	33.9	100	30	Peak
2484	36.93	-17.07	54	32.37	32.28	6.18	33.9	100	30	Average

Test Mode :	Mode 6	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	19.04	-20.96	40	33.46	16.51	0.53	31.46	-	-	Peak
151.5	23.26	-20.24	43.5	42.58	11.03	1.21	31.56	-	-	Peak
186.06	24.51	-18.99	43.5	45.7	9.06	1.27	31.52	100	139	Peak
534.5	20.01	-25.99	46	29.75	18.75	2.52	31.01	-	-	Peak
696.9	22.39	-23.61	46	29.42	20.86	2.93	30.82	-	-	Peak
950.3	25.59	-20.41	46	28.43	24.27	3.46	30.57	-	-	Peak
2374	33	-21	54	28.69	32.16	5.99	33.84	199	126	Average
2374	44.03	-29.97	74	39.72	32.16	5.99	33.84	199	126	Peak
2462	90.08	-	-	85.57	32.26	6.14	33.89	199	126	Average
2462	108.13	-	-	103.62	32.26	6.14	33.89	199	126	Peak
2483.5	49.43	-4.57	54	44.87	32.28	6.18	33.9	199	126	Average
2483.5	71.37	-2.63	74	66.81	32.28	6.18	33.9	199	126	Peak

Test Mode :	Mode 6	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	24.77	-15.23	40	39.19	16.51	0.53	31.46	100	261	Peak
140.97	23.4	-20.1	43.5	42.2	11.55	1.2	31.55	-	-	Peak
183.09	24.19	-19.31	43.5	45.4	9.05	1.26	31.52	-	-	Peak
559	21.11	-24.89	46	30.38	19.13	2.57	30.97	-	-	Peak
736.1	23.37	-22.63	46	29.61	21.46	3.03	30.73	-	-	Peak
898.5	26.62	-19.38	46	30.37	23.61	3.34	30.7	-	-	Peak
2342	33.35	-20.65	54	29.12	32.11	5.95	33.83	100	356	Average
2342	44.69	-29.31	74	40.46	32.11	5.95	33.83	100	356	Peak
2462	91.88	-	-	87.37	32.26	6.14	33.89	100	356	Average
2462	109.94	-	-	105.43	32.26	6.14	33.89	100	356	Peak
2483.5	52.27	-1.73	54	47.71	32.28	6.18	33.9	100	356	Average
2483.5	73.49	-0.51	74	68.93	32.28	6.18	33.9	100	356	Peak

Test Mode :	Mode 7	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	22.93	-17.07	40	37.58	16.27	0.54	31.46	100	48	Peak
142.05	22.84	-20.66	43.5	41.73	11.46	1.2	31.55	-	-	Peak
183.09	23.64	-19.86	43.5	44.85	9.05	1.26	31.52	-	-	Peak
419	19.22	-26.78	46	31.28	16.88	2.21	31.15	-	-	Peak
691.3	22.41	-23.59	46	29.53	20.79	2.92	30.83	-	-	Peak
943.3	25.94	-20.06	46	28.9	24.18	3.45	30.59	-	-	Peak
2384.29	44.91	-9.09	54	40.57	32.16	6.03	33.85	198	125	Average
2384.29	62.84	-11.16	74	58.5	32.16	6.03	33.85	198	125	Peak
2412	90.98	-	-	86.58	32.2	6.07	33.87	198	125	Average
2412	105.78	-	-	101.38	32.2	6.07	33.87	198	125	Peak
2484	45.39	-28.61	74	40.83	32.28	6.18	33.9	198	125	Peak
2484	33.43	-20.57	54	28.87	32.28	6.18	33.9	198	125	Average

Test Mode :	Mode 7	**Temperature :**	23~24℃
Test Channel :	01	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	25.31	-14.69	40	39.73	16.51	0.53	31.46	100	128	Peak
140.97	23.86	-19.64	43.5	42.66	11.55	1.2	31.55	-	-	Peak
183.9	23.23	-20.27	43.5	44.44	9.05	1.26	31.52	-	-	Peak
435.8	18.41	-27.59	46	30.13	17.15	2.26	31.13	-	-	Peak
626.2	21.47	-24.53	46	29.53	20.06	2.77	30.89	-	-	Peak
869.8	25.21	-20.79	46	29.35	23.28	3.3	30.72	-	-	Peak
2389.99	53.44	-0.56	54	49.08	32.18	6.03	33.85	100	3	Average
2389.99	71.71	-2.29	74	67.35	32.18	6.03	33.85	100	3	Peak
2412	92.91	-	-	88.51	32.2	6.07	33.87	100	3	Average
2412	107.8	-	-	103.4	32.2	6.07	33.87	100	3	Peak
2500	47.89	-26.11	74	43.31	32.3	6.18	33.9	100	3	Peak
2500	34.88	-19.12	54	30.3	32.3	6.18	33.9	100	3	Average

Test Mode :	Mode 8	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	19.59	-20.41	40	34.24	16.27	0.54	31.46	-	-	Peak
148.53	22.16	-21.34	43.5	41.32	11.19	1.21	31.56	-	-	Peak
180.93	22.88	-20.62	43.5	44.12	9.04	1.25	31.53	-	-	Peak
514.2	19.92	-26.08	46	30.05	18.44	2.48	31.05	-	-	Peak
758.5	24.1	-21.9	46	29.92	21.81	3.07	30.7	-	-	Peak
912.5	26.17	-19.83	46	29.68	23.79	3.37	30.67	100	215	Peak
2382	49.71	-24.29	74	45.37	32.16	6.03	33.85	200	126	Peak
2382	34.5	-19.5	54	30.16	32.16	6.03	33.85	200	126	Average
2437	107.65	-	-	103.18	32.24	6.11	33.88	200	126	Peak
2437	93.72	-	-	89.25	32.24	6.11	33.88	200	126	Average
2484	50.34	-23.66	74	45.78	32.28	6.18	33.9	200	126	Peak
2484	36.08	-17.92	54	31.52	32.28	6.18	33.9	200	126	Average

Test Mode :	Mode 8	**Temperature :**	23~24℃
Test Channel :	06	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	23.98	-16.02	40	38.4	16.51	0.53	31.46	100	172	Peak
53.49	21.02	-18.98	40	44.35	7.5	0.72	31.55	-	-	Peak
191.73	23.21	-20.29	43.5	44.34	9.08	1.29	31.5	-	-	Peak
551.3	20.58	-25.42	46	30	19.01	2.55	30.98	-	-	Peak
738.2	23.05	-22.95	46	29.26	21.49	3.03	30.73	-	-	Peak
926.5	25.83	-20.17	46	29.1	23.96	3.4	30.63	-	-	Peak
2390	53.36	-20.64	74	49	32.18	6.03	33.85	100	6	Peak
2390	35.68	-18.32	54	31.32	32.18	6.03	33.85	100	6	Average
2437	109.96	-	-	105.51	32.22	6.11	33.88	100	6	Peak
2437	95.14	-	-	90.67	32.24	6.11	33.88	100	6	Average
2484	55.99	-18.01	74	51.43	32.28	6.18	33.9	100	6	Peak
2484	38.06	-15.94	54	33.5	32.28	6.18	33.9	100	6	Average

Test Mode :	Mode 9	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	19.75	-20.25	40	34.17	16.51	0.53	31.46	-	-	Peak
149.34	22.38	-21.12	43.5	41.58	11.15	1.21	31.56	-	-	Peak
185.25	21.49	-22.01	43.5	42.69	9.06	1.26	31.52	-	-	Peak
472.9	19.57	-26.43	46	30.5	17.78	2.36	31.07	-	-	Peak
677.3	22.04	-23.96	46	29.36	20.63	2.89	30.84	-	-	Peak
945.4	26.42	-19.58	46	29.35	24.2	3.45	30.58	100	258	Peak
2310	32.51	-21.49	54	28.34	32.07	5.92	33.82	198	128	Average
2310	44.21	-29.79	74	40.04	32.07	5.92	33.82	198	128	Peak
2462	92.15	-	-	87.64	32.26	6.14	33.89	198	128	Average
2462	106.53	-	-	102.02	32.26	6.14	33.89	198	128	Peak
2483.85	69.18	-4.82	74	64.62	32.28	6.18	33.9	198	128	Peak
2483.85	50.8	-3.2	54	46.24	32.28	6.18	33.9	198	128	Average

Test Mode :	Mode 9	**Temperature :**	23~24℃
Test Channel :	11	**Relative Humidity :**	46~47%
Test Engineer :	Kai Wang	**Polarization :**	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	25.82	-14.18	40	40.47	16.27	0.54	31.46	100	132	Peak
140.97	22.57	-20.93	43.5	41.37	11.55	1.2	31.55	-	-	Peak
214.14	26.16	-17.34	43.5	46.12	10.13	1.38	31.47	-	-	Peak
453.3	18.2	-27.8	46	29.54	17.44	2.31	31.09	-	-	Peak
652.1	21.73	-24.27	46	29.41	20.35	2.84	30.87	-	-	Peak
841.8	25.44	-20.56	46	29.96	22.95	3.25	30.72	-	-	Peak
2380	33.09	-20.91	54	28.75	32.16	6.03	33.85	100	355	Average
2380	45.6	-28.4	74	41.26	32.16	6.03	33.85	100	355	Peak
2462	93.84	-	-	89.33	32.26	6.14	33.89	100	355	Average
2462	107.95	-	-	103.44	32.26	6.14	33.89	100	355	Peak
2483.66	72	-2	74	67.44	32.28	6.18	33.9	100	355	Peak
2483.66	53.32	-0.68	54	48.76	32.28	6.18	33.9	100	355	Average

3.8 Antenna Requirements

3.8.1 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.

3.8.2 Antenna Connected Construction

The antennas type used in this product is Fixed Internal Antenna without connector and it is considered to meet antenna requirement.

3.8.3 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	Due Date	Remark
System Simulator	R&S	CMU200	117995	N/A	Jun. 08, 2009	Jun. 07, 2011	Conducted (TH02-HY)
Spectrum Analyzer	R&S	FSP40	100055	9kHz~40GHz	Jun. 11, 2010	Jun. 10, 2011	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 13, 2010	Sep. 12, 2011	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	0846202	N/A	Sep. 14, 2010	Sep. 13, 2011	Conducted (TH02-HY)
Thermal Chamber	Ten Billion	TTH-D35P	TBN-930701	N/A	Jul. 30,2010	Jul. 29, 2011	Conducted (TH02-HY)
EMI Test Receive	R&S	ESCS 30	100356	9KHz – 2.75GHz	Aug. 16, 2010	Aug. 15, 2011	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz – 30MHz	Dec. 03, 2010	Dec. 02, 2011	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz – 30MHz	Dec. 01, 2010	Nov. 30, 2011	Conduction (CO05-HY)
AC Power Source	APC	APC-1000 W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz ~ 1GHz	Oct. 31, 2010	Oct. 30, 2011	Radiation (03CH07-HY)
Spectrum Analyzer	R&S	FSP	101067	9KHz ~ 30GHz	Dec. 03, 2010	Dec. 02, 2011	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 19, 2010	Aug. 18, 2011	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz- 40GHz	Oct. 18, 2010	Oct. 17, 2011	Radiation (03CH07-HY)
Pre Amplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Dec. 06, 2010	Dec. 05, 2011	Radiation (03CH07-HY)
Pre Amplifier	COM-POWER	PA-103A	161241	10-1000MHz.32 dB.GAIN	Mar. 29, 2011	Mar. 28, 2012	Radiation (03CH07-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	Jul. 29, 2010	Jul. 28, 2011	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.10	Normal (k=2)	0.05
Cable Loss	0.10	Normal (k=2)	0.05
AMN Insertion Loss	2.50	Rectangular	0.63
Receiver Specification	1.50	Rectangular	0.43
Site Imperfection	1.39	Rectangular	0.80
Mismatch	+0.34 / -0.35	U-Shape	0.24
Combined Standard Uncertainty Uc(y)	**1.13**		
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.26**		

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.41	Normal (k=2)	0.21
Antenna Factor Calibration	0.83	Normal (k=2)	0.42
Cable Loss Calibration	0.25	Normal (k=2)	0.13
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14
RCV/SPA Specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site Imperfection	1.43	Rectangular	0.83
Mismatch	+0.39 / -0.41	U-Shape	0.28
Combined Standard Uncertainty Uc(y)	**1.27**		
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**		

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

Contribution	Uncertainty of X_i		$u(X_i)$	C_i	$C_i * u(X_i)$
	dB	Probability Distribution			
Receiver Reading	±0.10	Normal (k=2)	0.10	1	0.10
Antenna Factor Calibration	±1.70	Normal (k=2)	0.85	1	0.85
Cable Loss Calibration	±0.50	Normal (k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site Imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1 = 0.197 Antenna VSWR Γ2 = 0.194 Uncertainty = 20Log(1-Γ1*Γ2)	+0.34 / -0.35	U-Shape	0.244	1	0.244
Combined Standard Uncertainty Uc(y)	**2.36**				
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.72**				