

Produkte
Products

Prüfbericht - Nr.:

12606802 003

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Test Report No.:

Auftraggeber:

Client:

Mitsumi Electric Co Ltd

1601, Sakai, Atsugi-shi, Kanagawa-ken 243, Japan

Gegenstand der Prüfung:

Test item: **Wireless LAN Module**

Bezeichnung:

DWM-W028

Identification:

Serien-Nr.:

Serial No.:

MAC: 0x 8C:56:C5:6B:3F:85

Wareneingangs-Nr.:

Receipt No.: **PT213102328-1**

Eingangsdatum:

Date of receipt:

2010-06-23

Prüfort:

Testing location: **TÜV Rheinland Japan Ltd. - Global Technology Assessment Center**

4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan

Prüfgrundlage: **47 CFR Part 15.207 and 15.247 (Subpart: C), 2009-10**

Test specification: **47 CFR Part 15.107 and 15.109 (Subpart: B), 2009-10**

ANSI C63.4-2003

KDB Publication No. 558074: Guidance on Measurements for Digital Transmission Systems (47 CFR Part 15.247), March 23, 2005

RSS-210 (Issue 7): 2007

RSS-Gen (Issue 2): 2007

Prüfergebnis:

Test Result:

Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).

The test item passed the test specification(s).

Prüflaboratorium:

Testing Laboratory: **TÜV Rheinland Japan Ltd. - Global Technology Assessment Center**

4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan

geprüft/ tested by:

kontrolliert/ reviewed by:

2010-07-16

Y. Sasaki / Inspector

2010-07-16

T. Cheung / Reviewer

Datum
Date

Name/Stellung
Name/Position

Unterschrift
Signature

Datum
Date

Name/Stellung
Name/Position

Unterschrift
Signature

Sonstiges / Other Aspects:

This test report deals with the Permissive Change II on the existing Limited Single Module of Intentional radiator 802.11b and 802.11g of the grant, details refer to Section 1: General remarks

Abkürzungen: **P(pass)** = entspricht Prüfgrundlage
F(all) = entspricht nicht Prüfgrundlage
N/A = nicht anwendbar
N/T = nicht getestet

Abbreviations: **P(pass)** = passed
F(all) = failed
N/A = not applicable
N/T = not tested

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.
This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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TEST SUMMARY

3.2.1 VOLTAGE REQUIREMENTS, FCC 15.31(E)

RESULT: PASS

3.2.2 ANTENNA REQUIREMENTS, FCC 15.203, FCC 15.204 AND RSS-GEN 7.1.4

RESULT: PASS

5.1.1 MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE OF TRANSMITTER, FCC 15.207 AND RSS-GEN 7.2.2

RESULT: PASS

5.2.1 MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE OF RECEIVER, FCC 15.107 AND RSS-GEN 7.2.2

RESULT: PASS

6.1.1 BAND EDGE RADIATED EMISSION, FCC 15.247(D) AND RSS- 210 2.2

RESULT: PASS

6.1.2 RADIATED EMISSION, OUT-OF-BAND AND SPURIOUS EMISSION, FCC 15.247(D), FCC 15.205, FCC 15.209, RSS-210 2.2, RSS-210 A8.5 AND RSS-GEN 7.2.1

RESULT: PASS

6.2.1 RADIATED EMISSION OF RECEIVER, FCC 15.109, RSS-210 2.2, RSS-210 2.6, RSS-210 A8.5, RSS-GEN 7.2.3.2

RESULT: PASS

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1. General Remarks

It is a permissive change project which is classified as **Permissive Change II** for the existing FCC Grant (FCC ID: EW4DWMW028) and as modification for IC certificate (IC: 4250A-DWMW028) by additional host and antennas are applied to this Limited Modular Approval.

Conducted Emission and Radiated Emission were conducted for the modification. Refer to the exhibits for the technical details of the host. Previous technical test data of the module refer to the test report of the original application.

Unintentional (receiver only) radiator of the tested product is considered in the test report.

There are three new alternative antennas DCA-P17 ES3, DCA-P17 ES4 and DCA-P17 CS will be applied for the additional host. The maximum antenna gain is -6.20 dBi(peak) for DCA-P17 ES4.

1. Additional host will be tested with DCA-P17 ES4 whose antenna gain is higher than that of DCA-P17 ES3 and DCA-P17 CS.
2. Only DCA-P17 ES3, DCA-P17 ES4 and DCA-P17 CS can be used for this additional host. DCA-P08 is not used for this additional host.
3. -6.20 dBi will be used for RF exposure calculation in portable configuration.

The test is only covered the radio operation mode will be tested under Class B. The other digital interface operation is handled by customer under Class A.

Test report number	Content
12606802 001	Original Application Host: Nintendo DS CTR Target Board Antenna: DCA-P08
12606802 002	Original Application RF Exposure report
12606802 003	Permissive change II Application Additional host: CTR-001(-01) Additional antenna: DCA-P17 ES3, DCA-P17 ES4 and DCA-P17 CS
12606802 004	Permissive change II Application RF Exposure report

1.1 Complementary Materials

All attachments are integral parts of this test report.

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2. Test Sites

2.1 Test Facilities

TÜV Rheinland Japan Ltd. - Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 299054.

The Industry Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under OATS filing number 3466B.

The test facility is accredited by VLAC (member of ILAC) under number VLAC-017 according to ISO/IEC 17025:2005. TÜV Rheinland Japan Ltd. is accredited by the Federal Communications Commission as a Conformity Assessment Body under Designation Number JP0017 and Test Firm Registration Number 386498.

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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Model Name	Serial Number	Equipment ID	Calibrated until
For Transmitter and Receiver Average Power					
RF Power Meter (Thermal)	Rohde & Schwarz	NRP-Z51	100637	BT-8209	2010-11
For AC Mains Conducted Emission (CE)					
Receiver	Rohde & Schwarz	ESU 40	100029	RF-0021	2010-12
LISN	Rohde & Schwarz	ENV216	100276	RF-0016	2011-06
For Radiated Emission (RE)					
Receiver	Rohde & Schwarz	ESU 8	100025	RF-0020	2011-02
Receiver	Rohde & Schwarz	ESU 40	100029	RF-0021	2010-12
RF Selector (10m)	Toyo Corporation	NS4900	0703-182	RF-0029	2011-05
3dB Attenuator 50Ohm	Tamagawa Electronics Co., Ltd.	CFA-01	-	RF-0265	2011-05
Low Noise Pre-Amplifier	TSJ	MLA-10K01-B01-35	1370750	RF-0253	2010-11
Microwave Pre-Amplifier, 1-8GHz	Toyo Corporation	TPA0108-40	0634	RF-0052	2010-11
Band Reject Filter	Nitsuki	NF-49BT	027	RF-0131	2010-11
Trilog Antenna, 30-1000MHz	Schwarzbeck	VULB9168	0245	RF-0019	2011-05
Horn Antenna, 1-10GHz	Schwarzbeck	BBHA9120B	419	RF-0050	2011-05
Horn Antenna with Pre-Amplifier, 2-18GHz (RX)	Toyo Corporation	HAP06-18W	00000025	RF-0065	2011-05
Horn Antenna with Pre-Amplifier, 18-26.5GHz (RX)	Toyo Corporation	HAP18-26N	00000010	RF-0070	2011-05
Band pass Filter	Micro-Tronics	HPM50107	006	RF-0334	2011-05
Constant Voltage Constant Frequency Stabilizers					
CVCF (Shielded Room)	NF Corporation	ESU2000S	9075612	RF-0210	N/A
CVCF Booster (Shielded Room)	NF Corporation	ESU2000B	9074403	RF-0211	N/A
CVCF (10m chamber)	NF Corporation	ESU2000S	9067307	RF-0212	N/A
CVCF Booster (10m chamber)	NF Corporation	ESU2000B	9074408	RF-0213	N/A

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2.3 Measurement Uncertainty

Table 2: Emission Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
AC Power Line Conducted Emission	150kHz - 30MHz	±3.0dB
Radiated Emission	30MHz - 1GHz	±4.7dB
	> 1GHz	±4.5dB

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3. General Product Information

3.1 Product Function and Intended Use

The **EUT** (Equipment Under Test) is a Wireless LAN Module certified as Limited Module Approval (FCC ID: EW4DWMW028 and IC: 4250A-DWMW028). The module consists of radios 802.11b/g. 802.11b at 1/2Mbps supports NDS series. 802.11b/g supports Nintendo Wii. The two radios cannot transmit at the same time.

3.2 System Details

Radio standard:	IEEE 802.11b/g
Specified power output:	8.26dBm (Peak), 4.38dBm (Average) for 802.11b 14.82dBm (Peak), 4.71dBm (Average) for 802.11g
Antenna gain:	-6.52dBi (DCA-P17 ES3) -6.20dBi (DCA-P17 ES4) -6.35dBi (DCA-P17 CS)
Antenna type:	Inverted F antenna
Mounting type:	External, fixed location
Frequency range:	2412 – 2472 MHz
Number of channel:	13
Channel spacing:	5 MHz
Modulation type:	BPSK, QPSK, CCK (802.11b) BPSK, QPSK, 16 QAM, 64 QAM (802.11g)
FCC Classification:	DTS
Emission designator:	G1D
System Input rating:	DC 12V or AC 110-240V, 50/60Hz via AC adaptor
Protection Class:	II
Test voltage:	AC 120V
Test frequency:	60Hz

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Table 3: Interfaces present on the EUT

No.	Interface	Cable Length for Testing, Shielding	Interface Classification
1.	AC Mains input <i>[AC Mains -> AC/DC adaptor]</i>	1.5m, un-shielded	AC Power Input Port
2.	DC power input <i>[AC/DC adaptor -> Host]</i>	0.9m, un-shielded	DC Power Input Port

3.2.1 Voltage Requirements, FCC 15.31(e)

RESULT:

PASS

The EUT has an internal voltage regulator to supply the RF circuit. Hence it complies with the power supply requirements.

3.2.2 Antenna Requirements, FCC 15.203, FCC 15.204 and RSS-Gen 7.1.4

RESULT:

PASS

The EUT has a permanent external antenna, details refer to the exhibits.

3.3 Clock Frequencies

The highest clock frequency generated by the EUT is 40 MHz

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3.4 Independent Operation Modes

The EUT was tested with the host. The test system was configured for testing in a typical fashion (as a customer would normally use it).

The justification and manipulation of cables and equipment in order to simulate a worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.4:2003. Testing was performed at the lowest operating frequency (2412 MHz), the operating frequency in the middle of the specified frequency band (2442 MHz) and the highest operating frequency (2472 MHz).

The basic operation modes are:

802.11b radio

- b1. EUT continuously transmits at lowest Channel (2412 MHz)
- b2. EUT continuously transmits at middle Channel (2442 MHz)
- b3. EUT continuously transmits at highest Channel (2472 MHz)

802.11g radio

- g1. EUT continuously transmits at lowest Channel (2412 MHz)
- g2. EUT continuously transmits at middle Channel (2442 MHz)
- g3. EUT continuously transmits at highest Channel (2472 MHz)

R. EUT receives packets with 802.11b/gradio

All continuous modulated signals are streaming with 100% duty cycle.

The worst-case data rate for each mode is determined as follows, based on preliminary test of above radios.

Table 4: The Date rate corresponds the worst case of each frequency band of different radio

Channel	Modulation/ Date Rate(Mbps)	
	802.11b	802.11g
Lowest: 2412MHz	11	12
Middle: 2442MHz	11	18
Highest: 2472MHz	1	24

The worst-case position was investigated for X/Y, Z orientation and movable antenna with highest emission, the worst-position was X/Y orientation with the movable antenna (nearly right angle) shown in Photograph 4. Therefore, all tests were conducted in X/Y orientation.

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3.5 Noise Suppressing Parts

Refer to the schematic

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4. Test Set-up and Operation Modes

4.1 Test Methodology

The test methodology used is based on the requirements of 47 CFR Part 15, sections 15.31, 15.33, 15.35, 15.205, 15.209 and Measurement of Digital Transmission Systems Operating under Section 15.247.

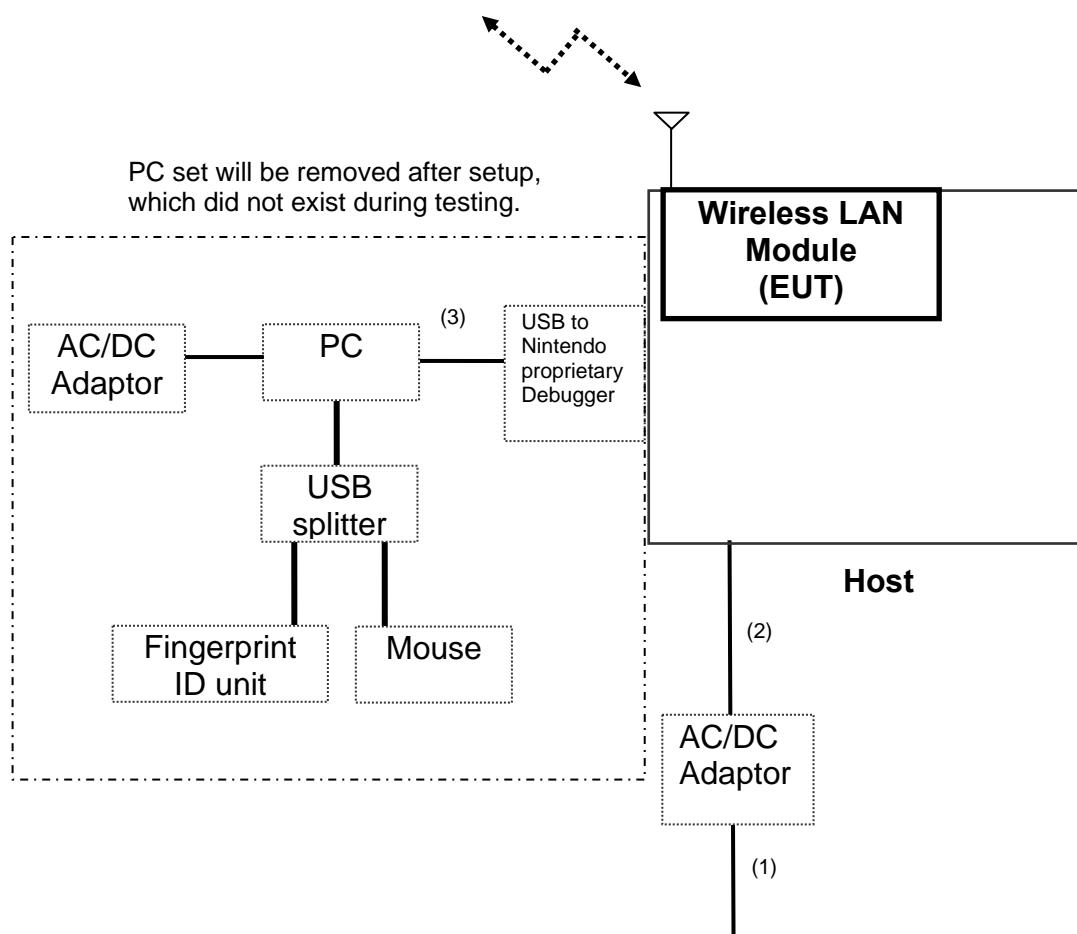
The test methods, which have been used, are based on ANSI C63.4:2003 and RSS-Gen (Issue 2).

For details, see under each test item.

4.2 Physical Configuration for Testing

Figure 1: Test setup

 : Equipment Under Test (EUT)
 : Accessory or components within EUT



Note: The PC is necessary for operation mode setting. The PC can be disconnected after the setting is successful.
For more details, refer to section: Photographs of the Test Set-Up.

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4.3 Test Operation and Test Software

Following software was used for testing provided by Nintendo Co., Ltd.

1. The test program used for 11b/g test is "HOSTIO-ART"..
HOSTIO-ART consists of the software on PC.
The version of "HOSTIO-ART" is 1.8.

The software is used to enable on the EUT the test operation mode specified in section 3.4 as appropriate.

4.4 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

1. Product: Host (Portable Game Machine)
Manufacturer: Nintendo Co., Ltd.
Model: CTR-001(-01)
Rated voltage: DC 4.6V
Rated power: 4.1W
Protection class: III
Serial number: AAA10000296
2. Product: AC Adapter for the Host
Manufacturer: Nintendo Co., Ltd.
Model: WAP-002(USA)
Rating: AC 120V (input)/ DC 4.6V (output)
Input power: 7W
Frequency: 60Hz
Protection class: II
Serial number: un-specified

4.5 Countermeasures to achieve EMC Compliance

None

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5. Test Results AC Mains Conducted Emission

5.1 AC Mains Conducted Emission of Transmitter

5.1.1 Mains Terminal Continuous Disturbance Voltage of Transmitter, FCC 15.207 and RSS-Gen 7.2.2

RESULT: PASS

Date of testing: 2010-06-25

Ambient temperature: 26°C

Relative humidity: 59%

Atmospheric pressure: 1010hPa

Frequency range: 0.15 – 30MHz

Kind of test site: Shielded Room

Requirements:

The AC power line on any frequency within the band 150 kHz to 30MHz shall not exceed the limits specified in FCC 15.207 and RSS-Gen 7.2.2.

Test procedure:

ANSI C63.4-2003

The EUT was placed on a wooden table raised 80cm above the reference ground plane. A vertical conducting plane of the screened room was located 40cm to the rear of the EUT. The AC adapter of the laptop computer was connected to a Line Impedance Stabilization Network (LISN) / Artificial Mains Network (AMN).

The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude and frequency in order to ensure that maximum emission amplitudes were attained.

The measurements were performed with the spectrum analyzer operating in the CISPR quasi-peak and average detection modes. The analyzer's 6 dB bandwidth was set to 9kHz. No video filter less than 10 times the resolution bandwidth was used.

Disturbances other than those mentioned are small or not detectable.

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Table 5: Conducted Emission, 150kHz – 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode b1, 802.11b

Freq. [MHz]	Phase	Reading QP [dB(µV)]	Reading AV [dB(µV)]	Factor [dB]	Level QP [dB(µV)]	Level AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
0.181	N	37.9	24.2	9.7	47.6	33.9	64.5	54.5	16.9	20.6
0.334	N	30.5	9.9	9.7	40.2	19.6	59.4	49.4	19.2	29.8
0.355	N	32.8	18.8	9.7	42.5	28.5	58.8	48.8	16.3	20.3
0.525	N	28.2	14.9	9.7	37.9	24.6	56.0	46.0	18.1	21.4
0.707	N	27.4	18.8	9.7	37.1	28.5	56.0	46.0	18.9	17.5
0.878	N	27.4	19.1	9.7	37.1	28.8	56.0	46.0	18.9	17.2
1.749	N	27.2	15.2	9.7	36.9	24.9	56.0	46.0	19.1	21.1
2.673	N	27.3	15.3	9.8	37.1	25.1	56.0	46.0	18.9	20.9
3.332	N	26.5	16.0	9.8	36.3	25.8	56.0	46.0	19.7	20.2

Notes: Level QP = Reading QP + Factor

Level AV = Reading AV + Factor

Table 6: Conducted Emission, 150kHz – 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode b3, 802.11b

Freq. [MHz]	Phase	Reading QP [dB(µV)]	Reading AV [dB(µV)]	Factor [dB]	Level QP [dB(µV)]	Level AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
0.179	N	39.2	28.1	9.6	48.8	37.7	64.5	54.5	15.7	16.8
0.180	L1	36.4	27.9	9.6	46.0	37.5	64.5	54.5	18.5	17.0
0.360	N	32.7	19.1	9.7	42.4	28.8	58.7	48.7	16.3	19.9
0.546	N	28.2	12.9	9.7	37.9	22.6	56.0	46.0	18.1	23.4
0.725	N	27.4	16.3	9.7	37.1	26.0	56.0	46.0	18.9	20.0
0.899	N	27.2	20.2	9.7	36.9	29.9	56.0	46.0	19.1	16.1
1.067	N	27.9	17.7	9.7	37.6	27.4	56.0	46.0	18.4	18.6
1.249	N	27.5	18.1	9.7	37.2	27.8	56.0	46.0	18.8	18.2
1.788	N	27.4	18.1	9.7	37.1	27.8	56.0	46.0	18.9	18.2
2.699	N	27.7	18.6	9.8	37.5	28.4	56.0	46.0	18.5	17.6
3.413	N	26.7	17.0	9.8	36.5	26.8	56.0	46.0	19.5	19.2

Notes: Level QP = Reading QP + Factor

Level AV = Reading AV + Factor

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Table 7: Conducted Emission, 150kHz – 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode g1, 802.11g

Freq. [MHz]	Phase	Reading QP [dB(µV)]	Reading AV [dB(µV)]	Factor [dB]	Level QP [dB(µV)]	Level AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
0.173	L1	36.4	28.1	9.6	46.0	37.7	64.8	54.8	18.8	17.1
0.174	N	39.4	28.4	9.6	49.0	38.0	64.8	54.8	15.8	16.8
0.328	N	30.6	10.1	9.7	40.3	19.8	59.5	49.5	19.2	29.7
0.343	N	32.4	17.4	9.7	42.1	27.1	59.1	49.1	17.0	22.0
0.523	N	28.8	16.8	9.7	38.5	26.5	56.0	46.0	17.5	19.5
0.698	N	27.8	18.1	9.7	37.5	27.8	56.0	46.0	18.5	18.2
0.876	N	27.2	16.1	9.7	36.9	25.8	56.0	46.0	19.1	20.2
1.600	N	21.7	4.0	9.7	31.4	13.7	56.0	46.0	24.6	32.3
2.614	N	28.0	18.2	9.8	37.8	28.0	56.0	46.0	18.2	18.0
3.293	N	26.6	16.5	9.8	36.4	26.3	56.0	46.0	19.6	19.7

Notes: Level QP = Reading QP + Factor
Level AV = Reading AV + Factor

Table 8: Conducted Emission, 150kHz – 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode g3, 802.11g

Freq. [MHz]	Phase	Reading QP [dB(µV)]	Reading AV [dB(µV)]	Factor [dB]	Level QP [dB(µV)]	Level AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
0.178	N	39.1	27.1	9.6	48.7	36.7	64.6	54.6	15.9	17.9
0.179	L1	35.9	25.8	9.6	45.5	35.4	64.5	54.5	19.0	19.1
0.351	N	32.6	18.1	9.7	42.3	27.8	58.9	48.9	16.6	21.1
0.532	N	28.4	15.0	9.7	38.1	24.7	56.0	46.0	17.9	21.3
0.703	N	27.3	17.1	9.7	37.0	26.8	56.0	46.0	19.0	19.2
0.890	N	27.0	16.5	9.7	36.7	26.2	56.0	46.0	19.3	19.8
1.238	N	27.3	17.3	9.7	37.0	27.0	56.0	46.0	19.0	19.0
1.554	N	26.9	14.4	9.7	36.6	24.1	56.0	46.0	19.4	21.9
1.721	N	26.6	13.1	9.7	36.3	22.8	56.0	46.0	19.7	23.2
2.639	N	27.4	16.3	9.8	37.2	26.1	56.0	46.0	18.8	19.9
3.324	N	25.9	15.3	9.8	35.7	25.1	56.0	46.0	20.3	20.9

Notes: Level QP = Reading QP + Factor
Level AV = Reading AV + Factor

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5.2 AC Mains Conducted Emission of Receiver

5.2.1 Mains Terminal Continuous Disturbance Voltage of Receiver, FCC 15.107 and RSS-Gen 7.2.2

RESULT:

PASS

Date of testing: 2010-06-25

Ambient temperature: 26°C

Relative humidity: 59%

Atmospheric pressure: 1010hPa

Frequency range: 0.15 – 30MHz

Kind of test site: Shielded Room

Requirements:

The AC power line on any frequency within the band 150 kHz to 30MHz shall not exceed the limits specified in FCC 15.107(a) and RSS-Gen 7.2.2.

Test procedure:

ANSI C63.4-2003

The EUT was placed on a wooden table raised 80cm above the reference ground plane. A vertical conducting plane of the screened room was located 40cm to the rear of the EUT. The AC adapter of the laptop computer was connected to a Line Impedance Stabilization Network (LISN) / Artificial Mains Network (AMN).

The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude and frequency in order to ensure that maximum emission amplitudes were attained.

The measurements were performed with the spectrum analyzer operating in the CISPR quasi-peak and average detection modes. The analyzer's 6 dB bandwidth was set to 9kHz. No video filter less than 10 times the resolution bandwidth was used.

Disturbances other than those mentioned are small or not detectable.

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Table 9: Conducted Emission, 150kHz – 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode R, 802.11b/g

Freq. [MHz]	Phase	Reading QP [dB(µV)]	Reading AV [dB(µV)]	Factor [dB]	Level QP [dB(µV)]	Level AV [dB(µV)]	Limit QP [dB(µV)]	Limit AV [dB(µV)]	Margin QP [dB]	Margin AV [dB]
0.182	N	38.3	24.5	9.7	48.0	34.2	64.4	54.4	16.4	20.2
0.186	L1	36.1	28.0	9.7	45.8	37.7	64.2	54.2	18.4	16.5
0.366	L1	27.2	18.8	9.7	36.9	28.5	58.6	48.6	21.7	20.1
0.374	N	32.4	19.5	9.7	42.1	29.2	58.4	48.4	16.3	19.2
0.561	N	28.8	18.0	9.7	38.5	27.7	56.0	46.0	17.5	18.3
0.747	N	27.0	19.0	9.7	36.7	28.7	56.0	46.0	19.3	17.3
0.931	N	27.0	19.6	9.7	36.7	29.3	56.0	46.0	19.3	16.7
1.120	N	28.7	21.4	9.7	38.4	31.1	56.0	46.0	17.6	14.9
1.854	N	26.6	15.9	9.7	36.3	25.6	56.0	46.0	19.7	20.4
2.790	N	26.8	16.8	9.8	36.6	26.6	56.0	46.0	19.4	19.4
3.562	N	26.1	16.7	9.8	35.9	26.5	56.0	46.0	20.1	19.5
4.681	N	25.4	16.6	9.8	35.2	26.4	56.0	46.0	20.8	19.6

Notes: Level QP = Reading QP + Factor

Level AV = Reading AV + Factor

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6. Test Results Radiated Emission

6.1 Radiated Emission of Transmitter

6.1.1 Band Edge Radiated Emission, FCC 15.247(d) and RSS- 210 2.2

RESULT: Pass

Date of testing: 2010-06-23 2010-06-25

Ambient temperature: 21°C 22°C

Relative humidity: 79% 79%

Atmospheric pressure: 1000hPa 1010hPa

Measurement distance: 3m

Kind of test site: Semi Anechoic Chamber

Requirements:

Radiated emissions which fall in the restricted bands, as defined in FCC 15.205(a) and RSS-210 2.7 (Table 1), must comply with the radiated emission limits specified in FCC 15.209(a) and RSS-210 2.7 (Table 2 and 3).

Test procedure:

ANSI C63.4-2003, RSS-Gen 4.9, 4.10 and Measurement of Digital Transmission Systems Operating under Section 15.247

Measurements were made in a Semi Anechoic Chamber at a measurement distance of 3m. The EUT was placed on a nonconductive turntable 0.8m above the ground plane. The EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the emission's maximum level.

Pre-check measurements were taken using both horizontal and vertical antenna polarizations for host orientations (X/Y and Z) and movable antenna in order to ensure that maximum emission amplitudes were attained.

Peak (1 MHz RBW/VBW) and average (1 MHz RBW/10 Hz VBW) radiated measurements were taken with a suitable span to encompass the peak of the fundamental.

The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

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Table 10: Band Edge Radiated Emission, 802.11b

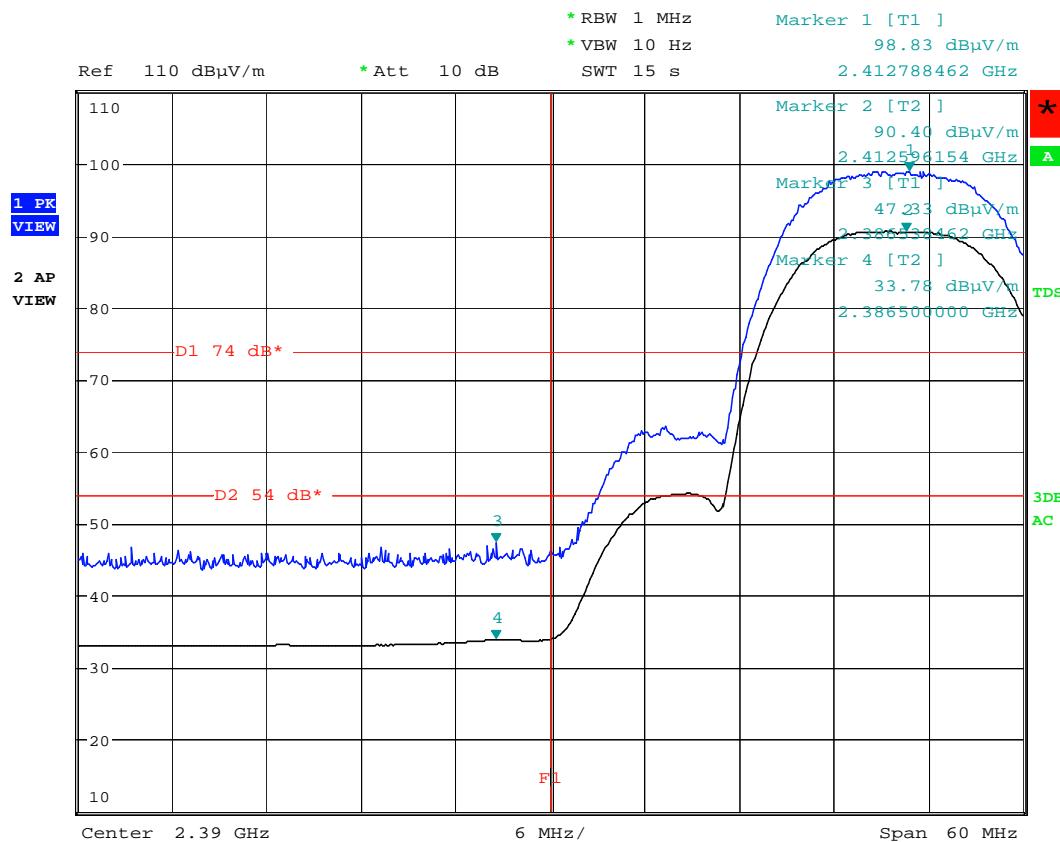
Operating Frequency [MHz]	EUT / Antenna Orient.	Average Value [dBuV/m]	Peak Value [dBuV/m]	Average Limit [dBuV/m]	Peak Limit [dBuV/m]	Average Margin [dB]	Peak Margin [dB]
2386.54	X/Y /V	33.78	47.33	54.00	74.00	20.22	26.67
2486.19	X/Y /V	43.47	50.88	54.00	74.00	10.53	23.12

Notes: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

Average limit in dBuV/m is calculated as follows: Average limit = $20 \times \log(500\mu\text{V}/\text{m})$.

Peak limit in dBuV/m is calculated as follows: Peak limit = Average limit + 20dB.

Figure 2: Band Edge Radiated Emission, Mode b1 (2412MHz), Peak and Average



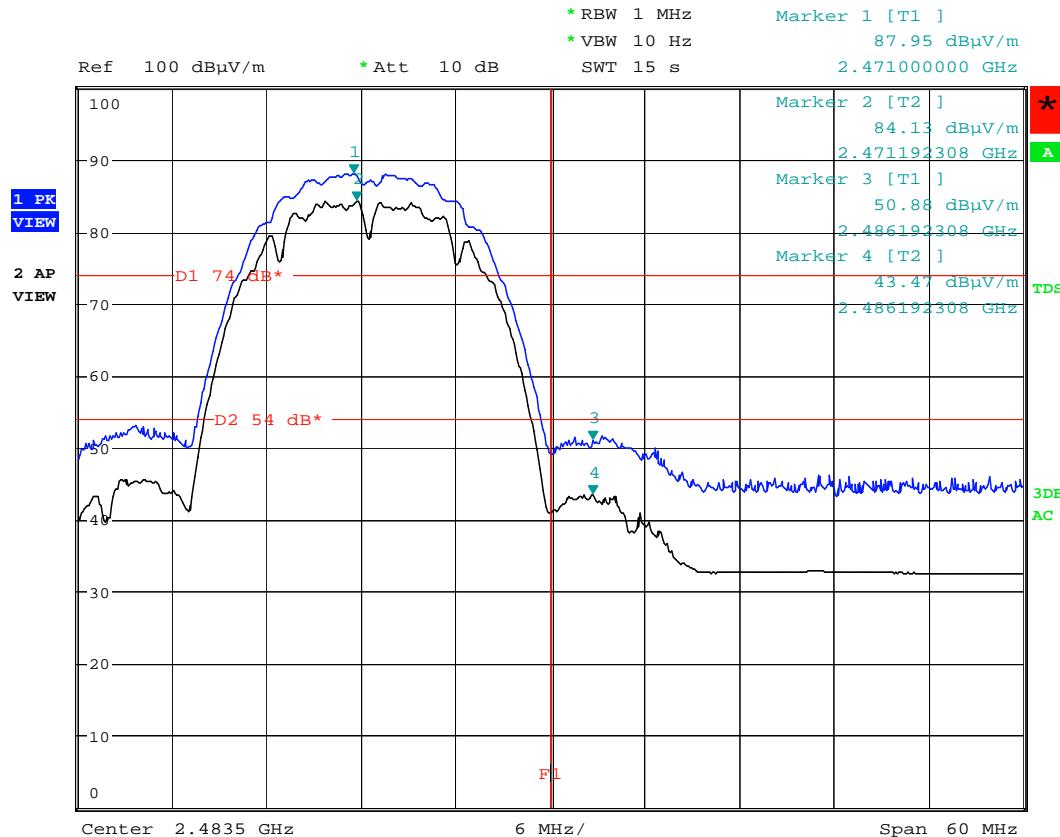
Note: The upper trace shows the peak value and the lower trace shows the average value.

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Figure 3: Band Edge Radiated Emission, Mode b3 (2472MHz), Peak and Average



Note: The upper trace shows the peak value and the lower trace shows the average value.

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Table 11: Band Edge Radiated Emission, 802.11g

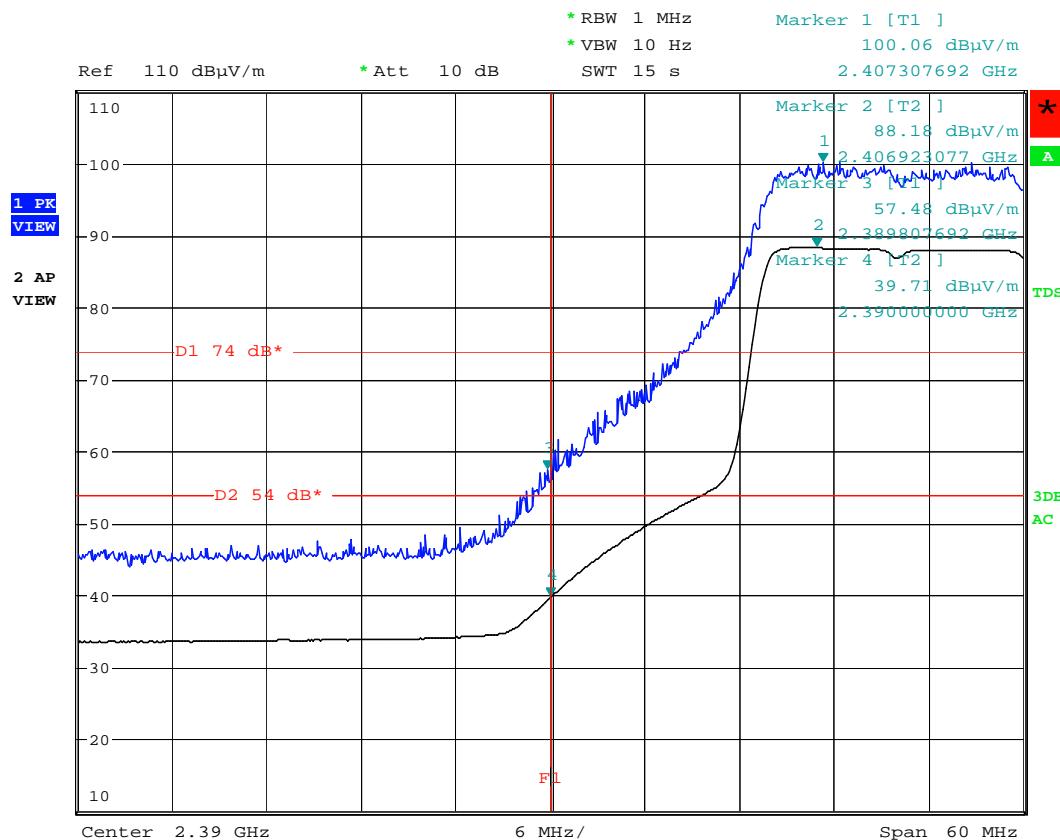
Operating Frequency [MHz]	EUT / Antenna Orient.	Average Value [dBuV/m]	Peak Value [dBuV/m]	Average Limit [dBuV/m]	Peak Limit [dBuV/m]	Average Margin [dB]	Peak Margin [dB]
2389.81	X/Y /V	39.71	57.48	54.00	74.00	14.29	16.52
2483.60	X/Y /V	45.00	72.69	54.00	74.00	9.00	1.31

Notes: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

Average limit in dBuV/m is calculated as follows: Average limit = $20 \times \log(500\mu\text{V}/\text{m})$.

Peak limit in dBuV/m is calculated as follows: Peak limit = Average limit + 20dB.

Figure 4: Band Edge Radiated Emission, Mode g1 (2412MHz), Peak and Average



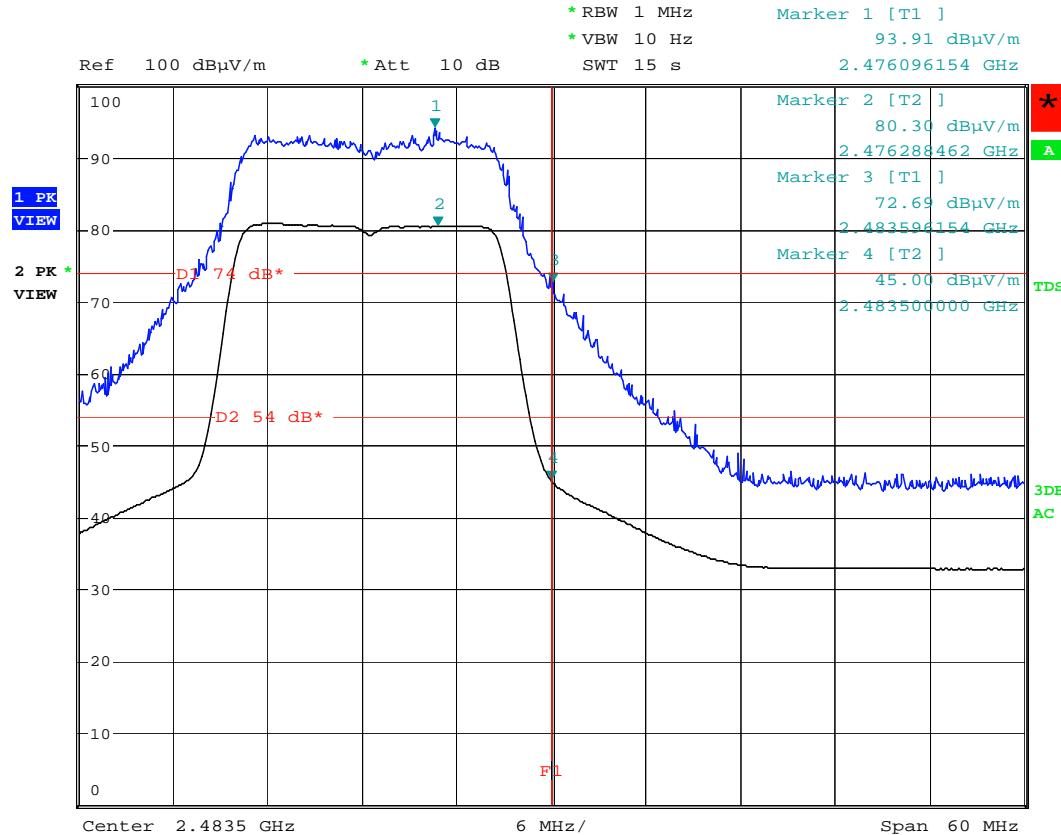
Note: The upper trace shows the peak value and the lower trace shows the average value.

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Figure 5: Band Edge Radiated Emission, Mode g3 (2472MHz), Peak and Average



Note: The upper trace shows the peak value and the lower trace shows the average value.

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6.1.2 Radiated Emission, Out-of-Band and Spurious Emission, FCC 15.247(d), FCC 15.205, FCC 15.209, RSS-210 2.2, RSS-210 A8.5 and RSS-Gen 7.2.1

RESULT:

PASS

Date of testing: 2010-06-23 2010-06-24 2010-06-25

Ambient temperature: 21°C 22°C 22°C

Relative humidity: 79% 79% 79%

Atmospheric pressure: 1000hPa 1003hPa 1010hPa

Frequency range: 9kHz – 25GHz

Measurement distance: 3m

Kind of test site: Semi Anechoic Chamber

Requirements:

The emissions from the intentional radiator shall not exceed the field strength specified in FCC 15.209(a) and RSS-210 2.7.

Test procedure:

ANSI C63.4-2003, RSS-Gen 4.9, 4.10 and Measurement of Digital Transmission Systems Operating under Section 15.247

Before final measurements of radiated emissions were made in Semi Anechoic Chamber, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system, the associated cabling and the host orientation (X/Y and Z) were varied in order to ensure that maximum emission amplitudes were attained. X/Y orientation was found to conduct the final measurement.

The EUT was placed on a nonconductive turntable 0.8m above the ground plane. Final radiated emission measurements were made at 3m. The spectrum was examined from 30 MHz to the 10th harmonic of the highest fundamental transmitter frequency (25 GHz).

At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

For frequencies between 30MHz and 1GHz, the spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. For emissions above 1GHz, emissions were measured using following settings: Peak: RBW=1MHz, VBW=1MHz, Average: RBW=1MHz, VBW=10Hz.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned are small or not detectable.

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Table 12: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode b1, 802.11b

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
114.348	V	37.7	-25.2	12.5	43.5	31.0	103	179
258.097	H	36.0	-22.6	13.4	46.0	32.6	113	206
300.925	H	41.8	-20.7	21.1	46.0	24.9	100	112
381.576	H	53.6	-18.5	35.1	46.0	10.9	100	111
390.570	V	48.2	-17.7	30.5	46.0	15.5	145	246
407.979	V	45.2	-17.2	28.0	46.0	18.0	143	84

Note: Level QP = Reading QP + Factor

Table 13: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode b1, 802.11b

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1113.263	V	53.0	60.0	-16.0	37.0	44.1	54.0 / 74.0	17.0	29.9	106	106
1139.419	V	47.8	58.3	-15.7	32.1	42.6	54.0 / 74.0	21.9	31.4	101	279
1199.811	V	43.9	63.7	-15.1	28.8	48.6	54.0 / 74.0	25.2	25.4	104	222
1230.432	V	54.4	59.7	-15.0	39.4	44.7	54.0 / 74.0	14.6	29.3	151	115
1331.432	V	46.1	63.4	-15.0	31.1	48.4	54.0 / 74.0	22.9	25.6	105	20
1920.096	H	49.6	57.7	-13.4	36.2	44.3	54.0 / 74.0	17.8	29.7	100	179
2880.190	H	47.6	55.4	-11.6	36.0	43.8	54.0 / 74.0	18.0	30.2	106	114
3566.214	H	38.3	52.6	-10.0	28.3	42.6	54.0 / 74.0	25.7	31.4	100	173

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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Table 14: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode b2, 802.11b

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
381.602	H	54.0	-18.5	35.5	46.0	10.5	104	97
381.634	V	46.1	-18.0	28.1	46.0	17.9	273	344
390.549	V	46.8	-17.7	29.1	46.0	16.9	169	237
390.597	H	48.1	-18.3	29.8	46.0	16.2	100	96
399.544	V	46.7	-17.4	29.3	46.0	16.7	157	236
412.432	H	46.3	-17.8	28.5	46.0	17.5	101	114

Note: Level QP = Reading QP + Factor

Table 15: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode b2, 802.11b

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1199.850	V	40.4	58.2	-15.1	25.3	43.1	54.0 / 74.0	28.7	30.9	100	260
1230.446	V	54.4	59.7	-15.0	39.4	44.7	54.0 / 74.0	14.6	29.3	100	110
1331.669	V	47.7	64.1	-15.0	32.7	49.1	54.0 / 74.0	21.3	24.9	100	34
1598.457	V	39.5	54.5	-14.1	25.4	40.4	54.0 / 74.0	28.6	33.6	100	107
1920.097	V	52.3	58.0	-13.4	38.9	44.6	54.0 / 74.0	15.1	29.4	100	216
7303.397	H	38.4	52.5	-4.6	33.8	47.9	54.0 / 74.0	20.2	26.1	193	336

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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Table 16: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode b3, 802.11b

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
300.106	H	41.6	-20.7	20.9	46.0	25.1	100	112
366.931	H	42.9	-18.9	24.0	46.0	22.0	101	247
381.653	H	52.5	-18.5	34.0	46.0	12.0	101	236
392.040	H	50.1	-18.2	31.9	46.0	14.1	104	252
381.626	V	53.3	-18.0	35.3	46.0	10.7	153	245
412.529	H	45.3	-17.8	27.5	46.0	18.5	212	216

Note: Level QP = Reading QP + Factor

Table 17: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode b3, 802.11b

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1025.379	V	53.8	59.4	-15.5	38.3	43.9	54.0 / 74.0	15.7	30.1	108	138
1204.803	V	40.3	62.2	-15.1	25.2	47.1	54.0 / 74.0	28.8	26.9	100	256
1230.454	V	54.6	59.6	-15.0	39.6	44.6	54.0 / 74.0	14.4	29.4	100	112
1332.152	V	46.6	62.3	-15.0	31.6	47.3	54.0 / 74.0	22.4	26.7	100	38
1920.104	H	50.7	57.7	-13.4	37.3	44.3	54.0 / 74.0	16.7	29.7	100	177
2880.151	H	47.6	55.2	-11.6	36.0	43.6	54.0 / 74.0	18.0	30.4	101	119

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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Table 18: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode g1, 802.11g

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
30.895	V	43.2	-24.8	18.4	40.0	21.6	100	149
57.644	V	43.7	-23.7	20.0	40.0	20.0	100	181
178.732	H	35.1	-23.3	11.8	43.5	31.7	167	228
381.634	V	52.8	-18.0	34.8	46.0	11.2	156	247
381.801	H	48.2	-18.5	29.7	46.0	16.3	100	102
390.876	H	48.3	-18.3	30.0	46.0	16.0	100	99
403.968	H	44.9	-18.0	26.9	46.0	19.1	101	237

Note: Level QP = Reading QP + Factor

Table 19: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode g1, 802.11g

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1025.355	V	54.1	60.0	-15.5	38.6	44.5	54.0 / 74.0	15.4	29.5	117	105
1113.265	V	53.5	60.5	-16.0	37.5	44.6	54.0 / 74.0	16.5	29.4	106	109
1199.527	V	44.7	62.1	-15.1	29.6	47.0	54.0 / 74.0	24.4	27.0	103	217
1230.450	V	54.1	59.3	-15.0	39.1	44.3	54.0 / 74.0	14.9	29.7	100	118
1331.443	V	47.1	63.1	-15.0	32.1	48.1	54.0 / 74.0	21.9	25.9	103	33
1699.205	V	47.5	56.8	-13.3	34.2	43.5	54.0 / 74.0	19.8	30.5	100	95
1920.099	V	51.4	56.6	-13.4	38.0	43.2	54.0 / 74.0	16.0	30.8	103	143
6980.876	H	38.3	52.3	-5.1	33.2	47.2	54.0 / 74.0	20.8	26.8	174	108

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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Table 20: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode g2, 802.11g

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
54.968	V	43.6	-23.4	20.2	40.0	19.8	100	180
381.591	V	53.5	-18.0	35.5	46.0	10.5	161	254
391.879	H	51.6	-18.3	33.3	46.0	12.7	101	103
399.512	H	46.6	-18.1	28.5	46.0	17.5	101	102
405.413	V	44.3	-17.3	27.0	46.0	19.0	156	238
422.784	V	44.5	-16.8	27.7	46.0	18.3	149	228

Note: Level QP = Reading QP + Factor

Table 21: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode g2, 802.11g

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1071.622	V	44.1	59.1	-16.0	28.1	43.1	54.0 / 74.0	25.9	30.9	100	24
1201.168	V	41.4	65.0	-15.1	26.3	49.9	54.0 / 74.0	27.7	24.1	100	230
1230.421	V	54.4	59.5	-15.0	39.4	44.5	54.0 / 74.0	14.6	29.5	100	109
1332.229	V	47.1	64.4	-15.0	32.1	49.4	54.0 / 74.0	21.9	24.6	100	25
1920.090	V	51.0	57.4	-13.4	37.6	44.0	54.0 / 74.0	16.4	30.0	100	212
4897.178	V	38.2	52.1	-9.1	29.1	43.0	54.0 / 74.0	24.9	31.0	196	68

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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Table 22: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode g3, 802.11g

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
156.407	H	35.3	-22.0	13.3	43.5	30.2	190	209
247.521	H	40.5	-23.1	17.4	46.0	28.6	137	228
256.875	H	37.4	-22.6	14.8	46.0	31.2	114	231
288.670	H	40.0	-21.1	18.9	46.0	27.1	100	162
381.548	H	53.0	-18.5	34.5	46.0	11.5	103	93
381.588	V	52.9	-18.0	34.9	46.0	11.1	176	258
403.185	H	46.5	-18.0	28.5	46.0	17.5	100	107

Note: Level QP = Reading QP + Factor

Table 23: Radiated Emission 1GHz – 25GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode g3, 802.11g

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1025.380	V	54.2	59.9	-15.5	38.7	44.4	54.0 / 74.0	15.3	29.6	114	104
1113.244	V	52.2	59.0	-16.0	36.2	43.0	54.0 / 74.0	17.8	31.0	101	106
1201.119	H	41.0	62.7	-15.1	25.9	47.6	54.0 / 74.0	28.1	26.4	135	248
1199.943	V	43.3	66.2	-15.1	28.2	51.1	54.0 / 74.0	25.8	22.9	103	88
1230.449	V	54.6	59.8	-15.0	39.6	44.8	54.0 / 74.0	14.4	29.2	100	112
1332.298	V	46.7	64.0	-15.0	31.7	49.0	54.0 / 74.0	22.3	25.0	100	24

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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6.2 Radiated Emission of Receiver

6.2.1 Radiated Emission of Receiver, FCC 15.109, RSS-210 2.2, RSS-210 2.6, RSS-210 A8.5, RSS-Gen 7.2.3.2

RESULT:

PASS

Date of testing: 2010-06-23 2010-06-24 2010-06-25

Ambient temperature: 21°C 22°C 22°C

Relative humidity: 79% 79% 79%

Atmospheric pressure: 1000hPa 1003hPa 1010hPa

Frequency range: 30MHz – 12.5GHz

Equipment classification: Class B

Measurement distance: 3m

Kind of test site: Semi Anechoic Chamber

Requirements:

The emissions from the unintentional radiator shall not exceed the field strength specified in 15.109(a) and RSS-210 Table 2 (and RSS-Gen Table 1).

Test procedure:

ANSI C63.4-2003, RSS-Gen 4.9, 4.10

Before final measurements of radiated emissions were made in Semi Anechoic Chamber, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system, the associated cabling and the orientation (X/Y & Z) of the EUT and movable antenna were varied in order to ensure that maximum emission amplitudes were attained. X/Y orientation was found to conduct the final measurement.

The EUT was placed on a nonconductive turntable 0.8m above the ground plane. Final radiated emission measurements were made at 3m. The spectrum was examined from 30 MHz to the 5th harmonic of the highest fundamental transmitter frequency (12.5 GHz).

At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

For frequencies between 30MHz and 1GHz, the spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. For emissions above 1GHz, emissions were measured using following settings: Peak: RBW=1MHz, VBW=1MHz, Average: RBW=1MHz, VBW=10Hz.

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The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned are small or not detectable.

Table 24: Radiated Emission 30MHz – 1GHz, Horizontal & Vertical Antenna Orientations, Quasi Peak Data, Mode R, 802.11b/g

Freq. [MHz]	Antenna polarity	Reading QP [dB(µV)]	Factor [dB(1/m)]	Level QP [dB(µV/m)]	Limit [dB(µV/m)]	Margin QP [dB]	Height [cm]	Angle [°]
67.030	V	47.4	-24.3	23.1	40.0	16.9	100	204
96.614	V	37.9	-26.8	11.1	43.5	32.4	141	157
299.979	H	38.9	-20.7	18.2	46.0	27.8	100	145
371.221	H	40.8	-18.8	22.0	46.0	24.0	100	117
381.558	H	51.0	-18.5	32.5	46.0	13.5	101	104
381.602	V	48.5	-18.0	30.5	46.0	15.5	173	242

Note: Level QP = Reading QP + Factor

Table 25: Radiated Emission 1GHz – 12.5GHz, Horizontal & Vertical Antenna Orientations, Peak and Average Data, Mode R, 802.11b/g

Freq. [MHz]	Antenna polarity	Reading AV [dB(µV)]	Reading PK [dB(µV)]	Factor [dB(1/m)]	Level AV [dB(µV/m)]	Level PK [dB(µV/m)]	Limit AV / PK [dB(µV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [°]
1113.242	H	54.2	60.1	-16.0	38.2	44.1	54.0 / 74.0	15.8	29.9	151	205
1206.475	V	52.9	58.3	-15.1	37.8	43.2	54.0 / 74.0	16.2	30.8	100	165
1331.795	V	45.6	60.2	-15.0	30.6	45.2	54.0 / 74.0	23.4	28.8	157	171
1920.104	V	52.3	56.7	-13.4	38.9	43.3	54.0 / 74.0	15.1	30.7	113	70
3552.763	V	38.2	52.2	-10.0	28.2	42.1	54.0 / 74.0	25.8	31.9	123	18
7354.066	V	37.9	52.3	-4.6	33.3	47.7	54.0 / 74.0	20.7	26.3	107	43

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

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