

CERTIFICATE OF COMPLIANCE

FCC PART 15.247 Certification

Applicant Name:	Date of Testing
UMID Co., Ltd.	November 4 to November 20 ,2009
Address:	Test Site/Location
#412, 4F, Techcenter, SKn Technopark, 190-1, Sanfdaewon-dong, Joongwon-gu, Sungnam city, Kyunggi-Do, 462-120, KOREA	BWS TECH Inc. #611-1 Maesna-Ri, Mohyeon-Myeon, Yongin-Si, Gyeonggi-Do 449-853, Korea
	Test Report No.: BWS-RF-0011
	BWS FRN: 00099636881
	IC Recognition NO.: 4963
FCC ID: XFGMBOOKBZ APPLICANT: UMID Co., Ltd.	

Model(s):	mbook bz
IC Model(s):	mbook bz
EUT Type:	mbook
Max. RF Output Power:	WLAN: 9.84dBm(9.63mW) / BT: 2.51dBm(1.78mW)
Frequency Range:	2412-2472 MHz (WLAN) / 2402-2480 MHz (BT)
Modulation Type	CCK,QPSK, GFSK,16PSK,QAM
FCC Classification:	DTS Part 15 Digital Transmission System
FCC Rule Part(s):	Part 15 subpart C Section 15.247
IC Rule:	RSS-210, RSS-GEN
IC Registration No.:	4963

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated. And the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

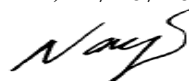
BWS TECH Inc. Certifies that no party to this application has been denied FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S.C.862

(Date) 11/20/2009



Tested by **GeunShik, KIM**

(Date) 11/20/2009



Reviewed by **TaeHyun, Nam**

BWS TECH Inc.

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FCC TEST REPORT

Scope – Measurement and determination of electromagnetic emission(EME) of radio frequency devices including intentional radiators and/or unintentional radiators for compliance with the technical rules and regulations of the U.S Federal Communications Commission(FCC)

1. General Information

Applicant

Company Name :UMID Co., Ltd.
Company Address :#412, 4F, Techcenter, SKn Technopark, 190-1, Sangdaewon-dong, Joongwon-gu, Sungnam city, Kyunggi-Do, 462-120, Korea
Phone/Fax :Phone : 82-31-776-4061 Fax : 82-31-776-4067

Manufacturer

Company Name :DAEWOO LUCOMS Co., Ltd.
Company Address :# 460-1, Geumeo-ri, Pogok-eup, Cheoin-gu, Yongin-si, Gyeonggi-do,Korea
Phone/Fax : Phone : 82-31-525-5013 Fax : 82-31-525-5028

- **EUT Type** :mbook
- **Model Name** :mbook bz
- **FCC ID** :XFGMBOOKBZ
- **S/N** :Prototype
- **Freq. Range** :Bluetooth & Wireless LAN (2400MHz ~ 2483.5MHz)
- **Number of Channels** :13 / WLAN
79 / Bluetooth
- **Modulation Method** :DSSS (BPSK, QPSK, CCK), OFDM (QAM)
FHSS (GFSK,QPSK,16PSK)
- **FCC Rule Part(s)** :Part 15 Subpart C Section 15.247
RSS-210 Low-power Licence-exempt Radiocommunication Devices
- **Test Procedure** :ANSI C63.4-2003
- **Dates of Tests** :November 4 to November 20, 2009
- **Place of Tests** :BWS TECH Inc.(FCC Registration Number : 553281)
#611-1 Maesan-Ri, Mohyeon-Myeon, Cheoin-Gu, Yongin-Si, Gyeonggi-Do 449-853, Korea
TEL: +82 31 333 5997 FAX: +82 31 333 0017
- **Test Report No.** :BWS-09-RF-0011

2. Description of Test Facility

The measurement for radiated emission test were practiced at the open area test site of BWS TECH Inc. Measurement for conducted emission test were practiced at the semi EMC Anechoic Chamber test site of BWS TECH Inc. facility located at #611-1 Maesan-Ri, Mohyeon-Myeon, Cheoin-Gu, Yongin-Si, Gyeonggi-Do 449-853, Korea. The site is constructed in conformance with the requirements of the ANSI C63.4-2000 and CISPR Publication 16. The BWS TECH measurement facility has been filed to the Commission with the FCC for 3 and 10-meter site configurations. Detailed description of test facility was found to be in compliance with the requirements of Section 2.948 FCC Rules according to the ANSI C63.4-1992 and registered to the Federal Communications Commission (Registration Number : 553281).

The measurement procedure described in American National Standard for Method of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz (ANSI C.63.4-2000) was used in determining radiated emissions from the UMID Co., Ltd. Model : mbook bz.

3. Product Information

3.1 Equipment Description

The Equipment Under Test (EUT) is RF transmitter by the UMID Co., Ltd.

Model : mbook bz. (FCC ID : XFGMBOOKBZ).

The mbook bz is suitable designed for use with a growing variety of mobile devices.

IrDA/Serial or Bluetooth/Serial interfaces make the mbook bz the perfect comrade for applications such as point of transaction warehousing, distribution, point of sales, hospitality, gaming and healthcare.

3.2 General Specification

The system specifications are subject to change without notice. For detailed system specifications, refer to the product catalog.

CPU(Optional)	IntelATOM Processor[Z515] 1.2GHz
Cash Memory	512KB
Main Memory(Optional)	512MB Type: DDR2
Main Chipset	Pulsbo
SSD(Optional)	NAND Flash 8GB/16GB/32GB/64GB
Graphic	Mobile Intel Graphic Media Accelerator 950
Sound Chipset	Realtek high Definition Audio Codec(ALC888)
Networks	Wireless LAN:802.11b/g Bluetooth 2.0 + EDR
Micro SD Card Slot	SD Card
CAP Sense	Volume control, screen magnification, scrolls and other functions
OvationNL	Mouse function (including the L/R keys)
Voice Recorder	O
Web Camera (Optional)	1.3M Web Camera
External I/O Interface (Optional)	Microphone input port x 1 Micro SD Card Slot x 1 USIM Card Slot x 1 DC-in jack, RGB 3.5 pi 4 pole EAR JACK x 1 Output port x 1 A-type USB Port x 1
External I/O Package (Optional)	USB 2.0x2 VGA Output x 1
LCD	12.2Cm(4.8")WSVGA(1024x600) TFT Color LCD
Size	161 x 96.5 x 30.2 mm
Weight	366g(battery included)
AC Adaptor	Input: AC 100-240V, 50/60Hz Output: DC9.5V, 2.5A *Use only authorized AC Adapter
Battery	Lithium-Ion smart battery : 2Cell(7.4V, 2,600mAh)
Operation Environment	Operation Temp: 10℃~35℃ Operation Humidity: 20%RH~80%RH Keeping Temp: -10℃~60℃ Keeping Humidity: 10%RH~80%RH

4. Description of Tests

4.1 Conducted Emission Measurement

Conducted emissions measurements were made in accordance with section 11, "Measurement of Information Technology Equipment" of ANSI C63.4-2003. The measurement were performed over the frequency range of 0.15MHz to 30MHz using a 50 Ω /50uH LISN as the input transducer to a Spectrum Analyzer or a Field Intensity Meter. The measurements were made with the detector set for "Peak" amplitude within a bandwidth of 10KHz or for "quasi-peak" within a bandwidth of 9KHz.

The line-conducted emission test is conducted inside a shielded anechoic chamber room with 1m x 1.5m x 0.8m wooden table, which is placed 40cm away from the vertical wall, and 1.5m away from the sidewall of the chamber room. Two LISNs are bonded to the shielded room. The EUT is powered from the PMM LISN and the support equipment is powered from the LISN. Power to the LISNs is filtered by a noise cut power line filters. All electrical cables are shielded by braided tinned steel tubing with inner ϕ 1.2cm. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and these supply lines will be connected to the LISN. All interconnecting cables more than 1m were shortened by non-inductive bundling (serpentine fashion) to a 1m length. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the Spectrum Analyzer to determine the frequency producing the max. Emission from the EUT. The frequency producing the max. Level was reexamined using the detector function set to the CISPR Quasi-Peak mode by manual, after scanned by automatic Peak mode from 0.45 to 30MHz. The bandwidth of the Spectrum Analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was maximized by switching power lines, varying the mode of operation or resolution, clock or data exchange speed, if applicable, whichever determined the worst-case emission. Each emission reported was calibrated using self-calibrating mode.

Photographs of the worst-case emission can be seen in photographs of conducted emission test setup.

4.2 Radiated Emission Measurement

Preliminary measurements were made at indoors 3-meter semi EMC Anechoic Chamber using broadband antennas, broadband amplifier, and spectrum analyzer to determine the emission frequencies producing the maximum EME.

Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configurations, mode of operation, turntable azimuth with respect to the antenna were noted for each frequency found. The spectrum was scanned from 30 to 1000MHz using bi-log antenna and above 1000MHz, linearly polarized double ridge horn antennas were used. Above 1GHz, linearly polarized double ridge horn antennas were used. The measurements were performed with three frequencies, which were selected as bottom, middle, and top frequency in the operating band. Emission level from the EUT with various configurations was examined on the spectrum analyzer connected with the RF amplifier and plotted graphically.

Final measurements were made outdoors open site at 3-meter test range using biconical and log periodic, Horn antenna. The output from the antenna was connected, via a preselector or a preamplifier, to the input of the EMI Measuring Receiver and Spectrum analyzer (for above 25GHz). The detector function was set to the quasi-peak or peak mode as appropriate. The measurement bandwidth on the Field strength receiver was set to at least 120kHz (1MHz for measurement above 1GHz), with all post-detector filtering no less than 10 times the measurement bandwidth. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition.

Each frequency found during preliminary measurement was examined and investigated as the same set up and configuration which produced the maximum emission. The EUT, support equipment and interconnecting cables were configured to the set-up producing the maximum emission for the frequency and were placed on top of a 0.8-meter high non-metallic 1m x 1.5 meter table. The turntable containing the system was rotated and the antenna height was varied 1 to 4 meters and stopped at the azimuth or height producing the maximum emission.

Varying the mode of operating frequencies of the EUT maximized each emission. The system was tested in all the three orthogonal planes and changing the polarity of the antenna. The worst-case emissions are recorded in the data tables. If necessary, the radiated emission measurement could be performed at a closer distance to ensure higher accuracy and the results were extrapolated to the specified distance using an inverse linear distance extrapolation factor (20dB/decade) as per section 15.31(f).

5. Test Condition

5.1 Test Configuration

The device was configured for testing in a typical fashion (as a customer would normally use it). During the tests, the EUT and the supported equipments were installed to meet FCC requirement and operated in a manner, which tends to maximize its emission level in a typical application.

Radiated Emission Test

Preliminary radiated emission tests were conducted using the procedure in ANSI C63.4/2000 Clause 8.3.1.1 to determine the worst operating condition. Final radiated emission tests were measured at 3-meter open field test site. To complete the test configuration required by the FCC, the EUT was tested in all three orthogonal planes.

5.2 EUT operation

EUT was tested according to the operation modes provided by the specifications given by the manufacturer, and reported the worst emissions.

6. TEST RESULTS

Summary of Test Results

The measurement results were obtained with the EUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum emission of the EUT are reported.

APPLIED STANDARD : 47 CFR Part 15, Subpart C & RSS-210				
FCC Rule	IC Rule	Description of Test	Limit	Result
15.207	-	Conducted	Various	Pass
Wireless LAN				
15.247(a)	A8.2 (a)	6dB Bandwidth	Less than 1MHz	Pass
15.247(b)	A8.4 (4)	Maximum Peak Output Power	Less than 30dBm	Pass
15.247(d)	A8.5	Conducted Emission & 100kHz Bandwidth of Frequency Band Edges	More than 20dBc	Pass
15.209	A8.5	Radiated Emission	Various	Pass
15.247(e)	A8.2 (b)	Power Spectral Density	Less than 8dBm	Pass
15.203	A8.4 (6)	Antenna Requirement	Less than 6dBi	Pass
BlueTooth				
15.247(a)	A8.1 (a)	20dB Bandwidth	N/A	Pass
15.247(a)	A8.1 (d)	Average time of occupancy	Less than 0.4 Sec.	Pass
15.247(b)	A8.4 (2)	Maximum Peak Output Power	Less than 30dBm	Pass
15.247(d)	A8.5	Conducted Emission & 100kHz Bandwidth of Frequency Band Edges	More than 20dBc	Pass
15.209	A8.5	Radiated Emission	Various	Pass
15.247(a)	A8.4 (2)	Minimum Hopping Channels	More than 15Ch.	Pass
15.203	A8.4 (6)	Antenna Requirement	Less than 6dBi	Pass

7. Test Procedure & Measurement Data

7.1 Conducted Emissions

EUT	:	mbook bz
Test Standard	:	FCC Part 15 Subpart C Section 15.207
Test Date	:	October 28, 2009
Operating Condition	:	Worst case mode (MONITORING)
Environment Condition	:	Temperature : 21 °C, Humidity Level : 42 %RH
Result	:	Passed by -20.18 dB

The following table shows the highest levels of conducted emissions on both phase of Hot and Neutral line.

Tabulated Conducted Emission Test Data

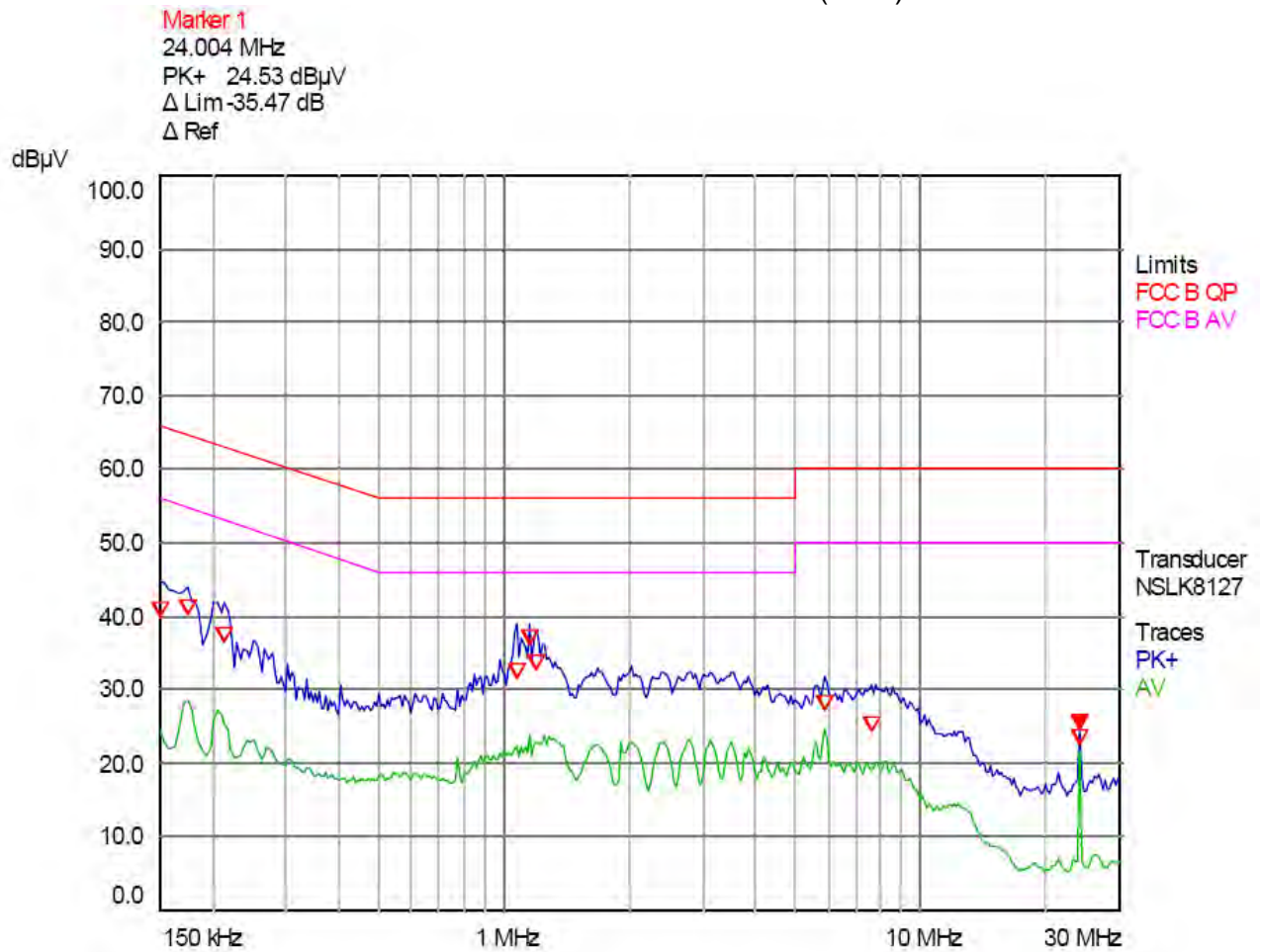
Detector Mode ; CISPR Quasi Peak mode / Average mode (6dB Bandwidth : 9kHz).

Freq [MHz]	Correcton		Phase [H/N]	Quasi-Peak Mode				Average Mode			
	AMN	C.L		Limit	Reading	Emission Level	Margin	Limit	Reading	Emission Level	Margin
				[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]
0.150	0.06	0.03	H	66.00	39.92	45.82	20.18	56.00			
0.174	0.06	0.03	H	65.40	40.19	38.70	26.70	55.40			
0.214	0.07	0.10	H	64.30	36.41	38.00	26.30	54.30			
1.110	0.04	0.42	N	56.00	31.70	30.86	25.14	46.00			
1.154	0.04	0.42	N		36.50	31.57	24.43				
1.198	0.04	0.42	H		32.67	31.54	24.46				
5.876	0.06	0.90	H	60.00	27.30	22.08	37.92	50.00			
7.588	0.05	0.99	H		24.38	25.19	34.81				
24.004	0.08	1.50	H		22.53	23.90	36.10				

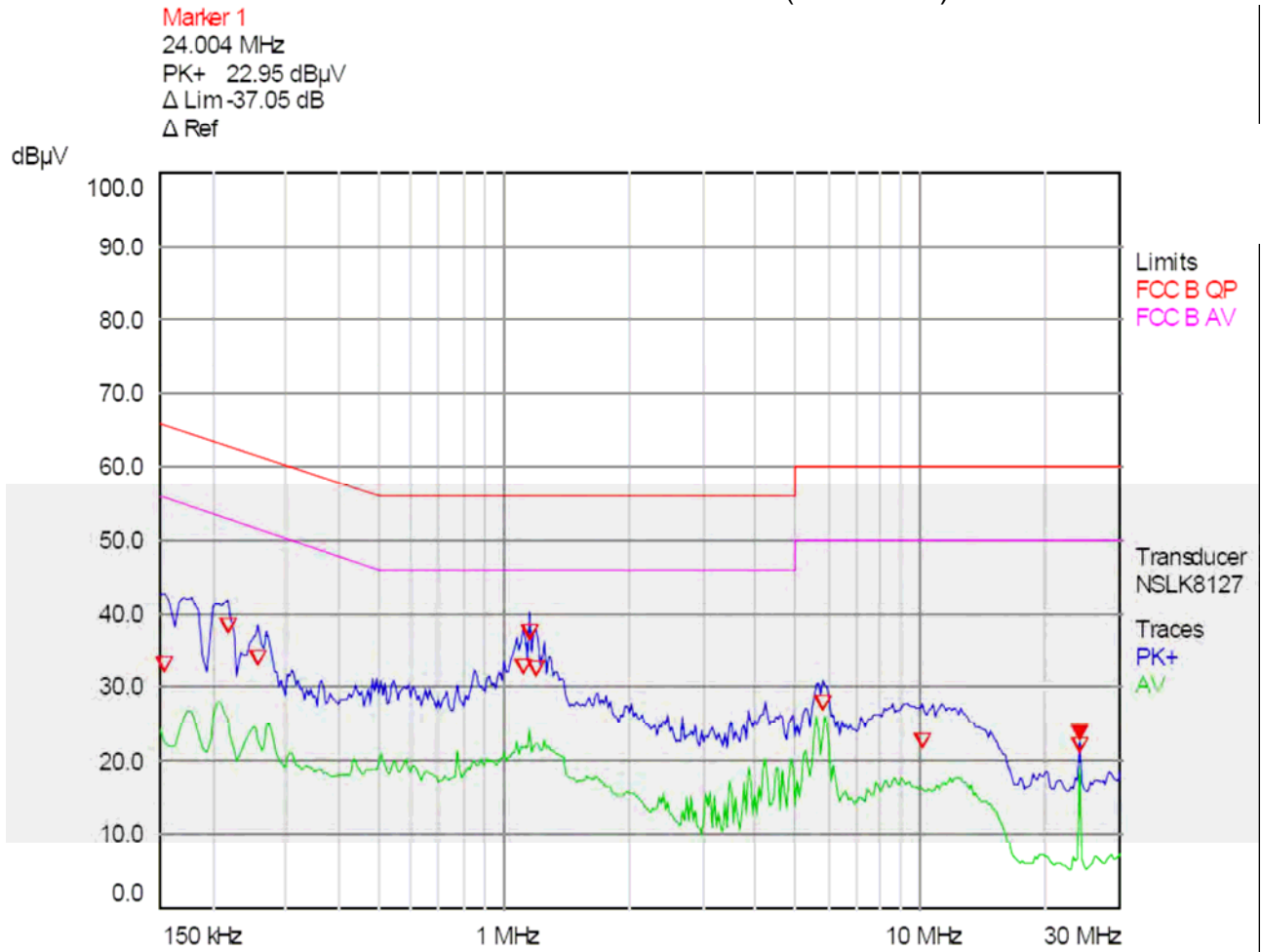
NOTES :

1. H : Hot Line , N :Neutral Line
2. Emission Level = Reading + Correction Factor
3. Measurements were performed at the AC Power Inlet of the host PC with the EUT plugged in the frequency band of 150kHz ~30MHz
4. Margin = Limit - Emission Level
5. Measurement uncertainty estimated at ± 3.788 dB.
The measurement uncertainty is given with a confidence of 95.00 % with the coverage factor, k=2.

Plots of Conducted Emission Test(HOT)



Plots of Conducted Emission Test(NEUTRAL)



7.2 Wireless LAN

7.2.1 6 dB Bandwidth

EUT : mbook bz
Test Standard : FCC Part15 Subpart C Section 15.247(a)(2)
RSS-210 Annex 8.2 (a)
Test Date : November 10, 2009
Wireless LAN.
Operating Condition : The EUT was operated at transmitting condition
continuously during the test.
Environment Condition : 24 °C/ 43 %
Result : Passed

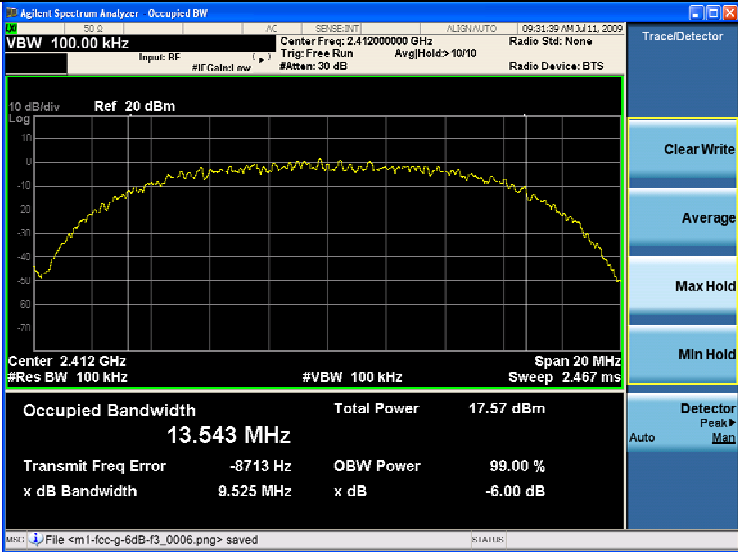
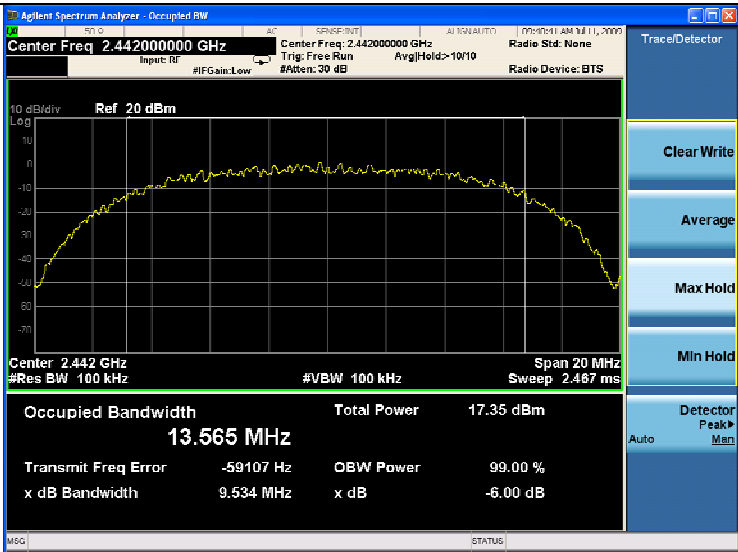
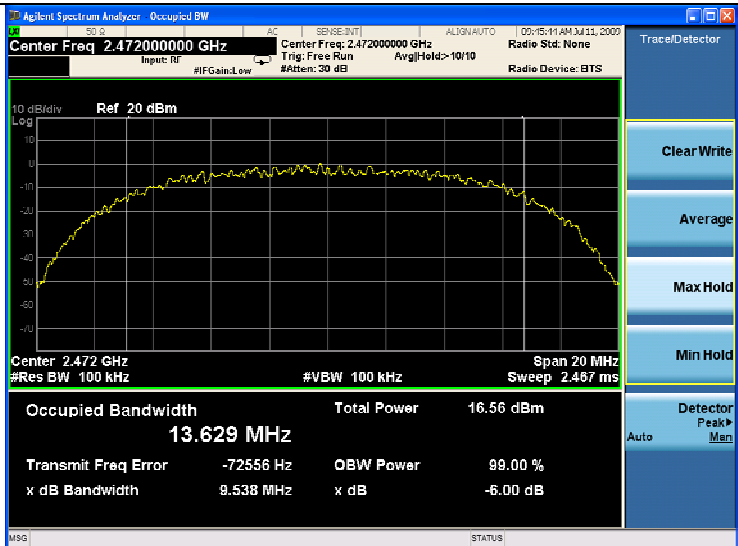
6 dB Bandwidth Test Data

Mode	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
802.11b	2412	13.54	More than 500 kHz
	2442	13.56	
	2472	13.62	
802.11g	2412	16.46	
	2442	16.45	
	2472	16.46	

NOTES:

1. Measure conducted 6 dB bandwidth of relevant channel using Spectrum Analyzer.
2. RBW 100kHz, VBW 100kHz.
3. 6 dB less than both bandwidth than maximum peak power.

Plots of 6 dB Bandwidth (802.11b)

Frequency	6 dB Bandwidth measured conducted of 802.11b
2412 MHz 9.52 MHz	 <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.412000000 GHz #Res BW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 13.543 MHz Total Power: 17.57 dBm Transmit Freq Error: -8713 Hz OBW Power: 99.00 % x dB Bandwidth: 9.525 MHz x dB: -6.00 dB</p>
2442 MHz 9.53 MHz	 <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.442000000 GHz #Res BW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 13.565 MHz Total Power: 17.35 dBm Transmit Freq Error: -59107 Hz OBW Power: 99.00 % x dB Bandwidth: 9.534 MHz x dB: -6.00 dB</p>
2472 MHz 9.53 MHz	 <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.472000000 GHz #Res BW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 13.629 MHz Total Power: 16.56 dBm Transmit Freq Error: -72556 Hz OBW Power: 99.00 % x dB Bandwidth: 9.538 MHz x dB: -6.00 dB</p>

Plots of 6 dB Bandwidth (802.11g)

Frequency	6 dB Bandwidth measured conducted of 802.11g
2412 MHz 16.53 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.412000000 GHz #Res BW: 100 kHz #VBW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 16.460 MHz Total Power: 13.07 dBm Transmit Freq Error: -20447 Hz OBW Power: 99.00 % x dB Bandwidth: 16.53 MHz, -6.00 dB</p>
2442 MHz 16.53 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.442000000 GHz #Res BW: 100 kHz #VBW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 16.457 MHz Total Power: 13.12 dBm Transmit Freq Error: -23728 Hz OBW Power: 99.00 % x dB Bandwidth: 16.53 MHz, -6.00 dB</p>
2472 MHz 16.54 MHz	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.472000000 GHz #Res BW: 100 kHz #VBW: 100 kHz Span: 20 MHz Sweep: 2.467 ms</p> <p>Occupied Bandwidth: 16.468 MHz Total Power: 12.41 dBm Transmit Freq Error: -30825 Hz OBW Power: 99.00 % x dB Bandwidth: 16.54 MHz, -6.00 dB</p>

7.2.2 Maximum Peak Output Power

EUT : mbook bz
Test Standard : FCC Part15 Subpart C Section 15.247(b)(3)
RSS-210 Annex 8.4 (4)
Test Date : November 10, 2009
Wireless LAN.
Operating Condition : The EUT was operated at transmitting condition
continuously during the test.
Environment Condition : 24 °C/ 43 %
Result : Passed




Maximum Peak Output Power Test Data

Mode	Frequency (MHz)	Maximum Peak Output Power (dBm)	Limit
802.11b	2412	9.19	30 dBm
	2442	9.47	
	2472	8.74	
802.11g	2412	8.33	
	2442	8.56	
	2472	9.84	

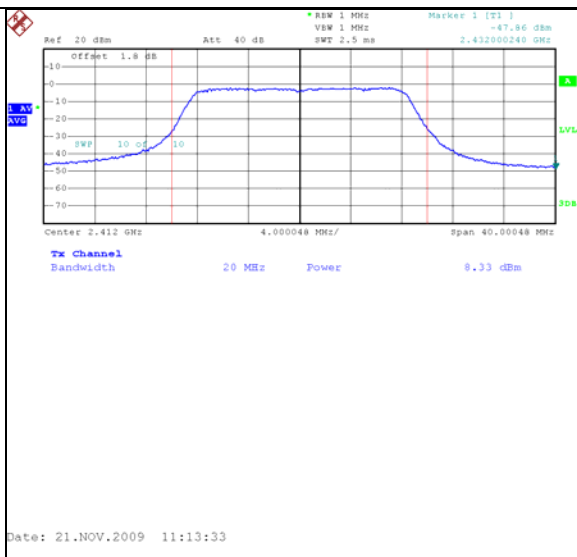
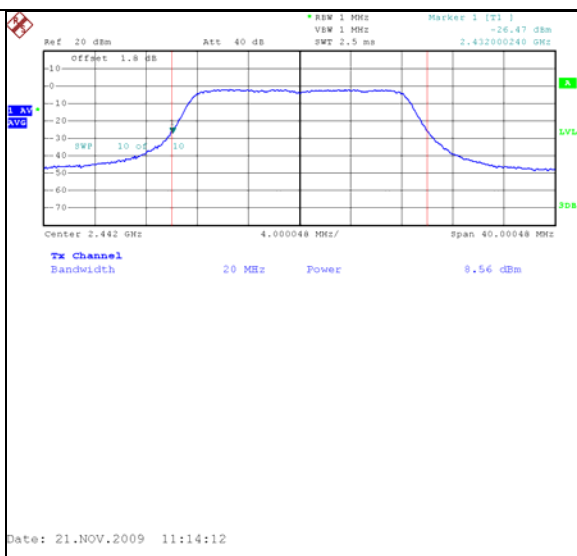
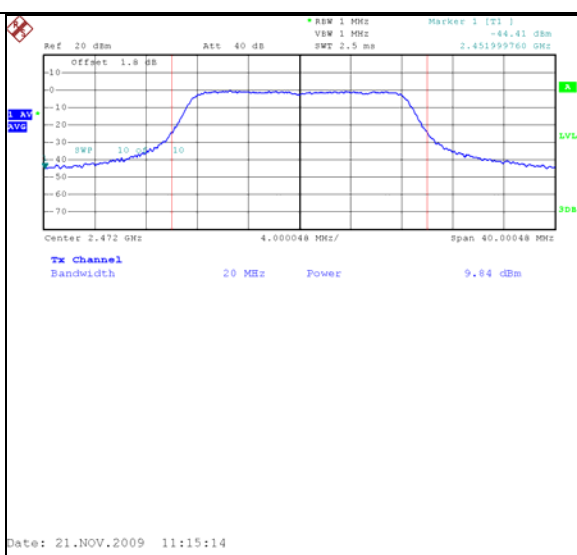
NOTES:

1. Measure conducted Maximum Peak Output of relevant channel using Spectrum analyzer.
2. RBW 1MHz, VBW 1MHz, Channel Power.

Plots of Maximum Peak Output Power (802.11b)

Frequency	Maximum Peak Output Power measured conducted of 802.11b	
2412 MHz 9.19 dBm	 <p>Ref 20 dBm Att 40 dB *BW 1 MHz Marker 1 [1] -68.13 dBm Offset 1.8 dB VSW 1 MHz SWT 2.5 ms 2.35199768 GHz Center 2.412 GHz 4.000048 MHz/ Span 40.00048 MHz Tx Channel Bandwidth 20 MHz Power 9.19 dBm Date: 21.NOV.2009 10:57:34</p>	
2442 MHz 9.47 dBm	 <p>Ref 20 dBm Att 40 dB *BW 1 MHz Marker 1 [1] -67.56 dBm Offset 1.8 dB VSW 1 MHz SWT 2.5 ms 2.421999768 GHz Center 2.442 GHz 4.000048 MHz/ Span 40.00048 MHz Tx Channel Bandwidth 20 MHz Power 9.47 dBm Date: 21.NOV.2009 10:58:43</p>	
2472 MHz 8.74 dBm	 <p>Ref 20 dBm Att 40 dB *BW 1 MHz Marker 1 [1] -68.42 dBm Offset 1.8 dB VSW 1 MHz SWT 2.5 ms 2.451999768 GHz Center 2.472 GHz 4.000048 MHz/ Span 40.00048 MHz Tx Channel Bandwidth 20 MHz Power 8.74 dBm Date: 21.NOV.2009 10:59:20</p>	

Plots of Maximum Peak Output Power (802.11g)

Frequency	Maximum Peak Output Power measured conducted of 802.11g	
2412 MHz 8.33 dBm	 <p>Date: 21.NOV.2009 11:13:33</p>	
2442 MHz 8.56 dBm	 <p>Date: 21.NOV.2009 11:14:12</p>	
2472 MHz 9.84 dBm	 <p>Date: 21.NOV.2009 11:15:14</p>	

7.2.3 Conducted Emission & 100 kHz Bandwidth of Frequency Band Edges

EUT	:	mbook bz
Test Standard	:	FCC Part15 Subpart C Section 15.247(d) RSS-210 Annex 8.5
Test Date	:	November 10, 2009
Operating Condition	:	Wireless LAN. The EUT was operated at transmitting condition continuously during the test.
Environment Condition	:	24 °C/ 43 %
Result	:	Passed

7.2.3.1 Conducted Emission Test

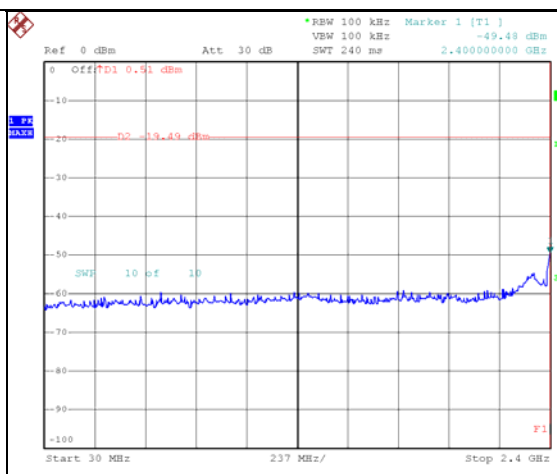
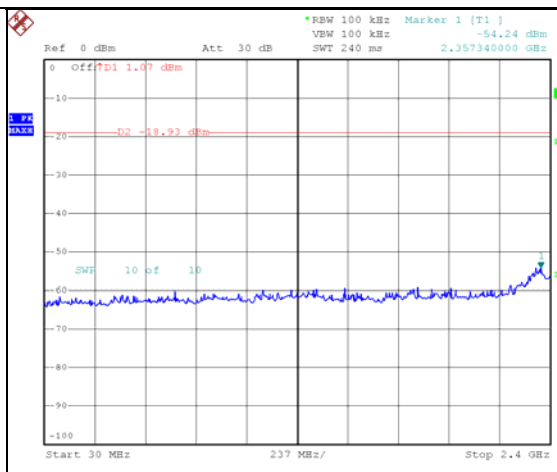
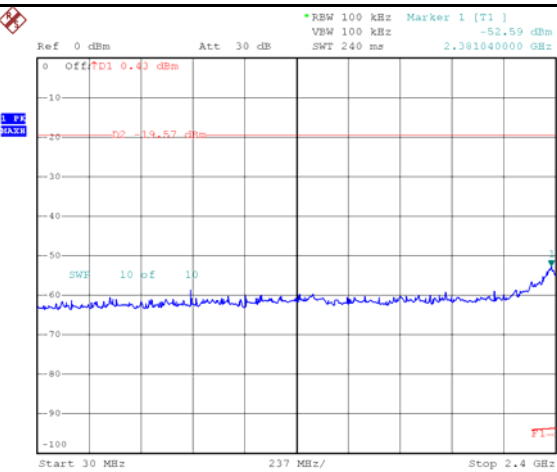
Result : Please refer to the attached Plots for details :

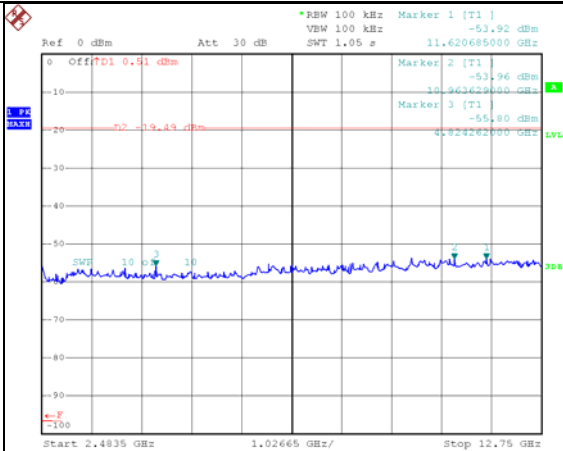
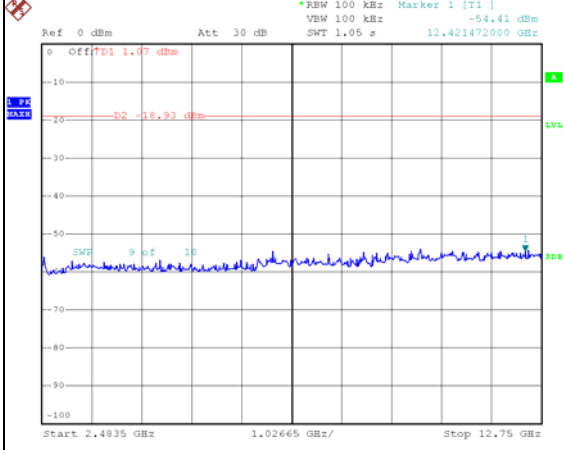
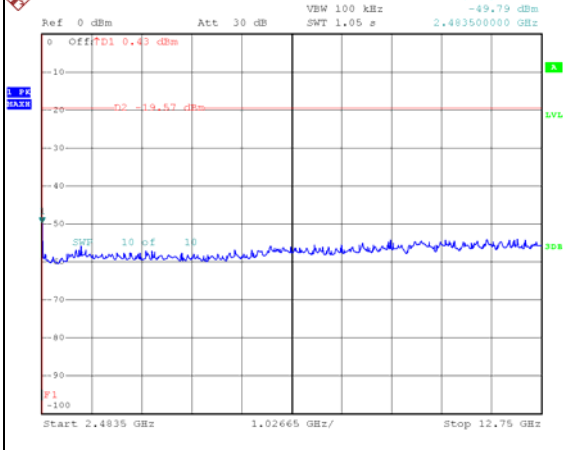
7.2.3.2 100 kHz Bandwidth of Frequency Band Edges

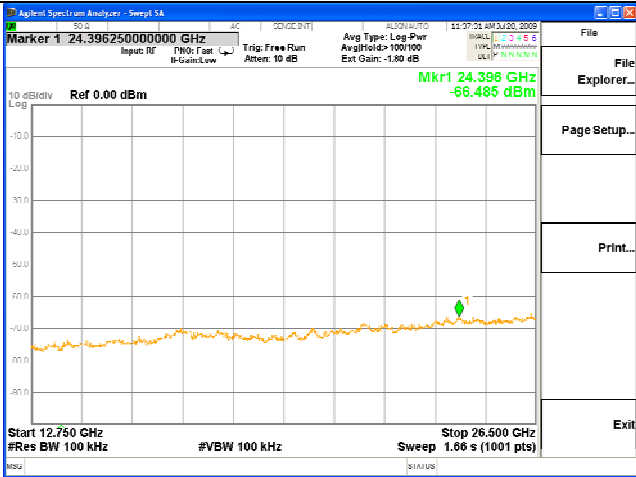
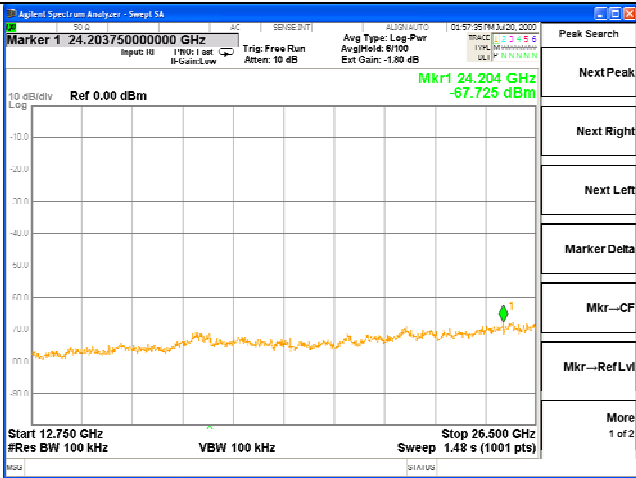
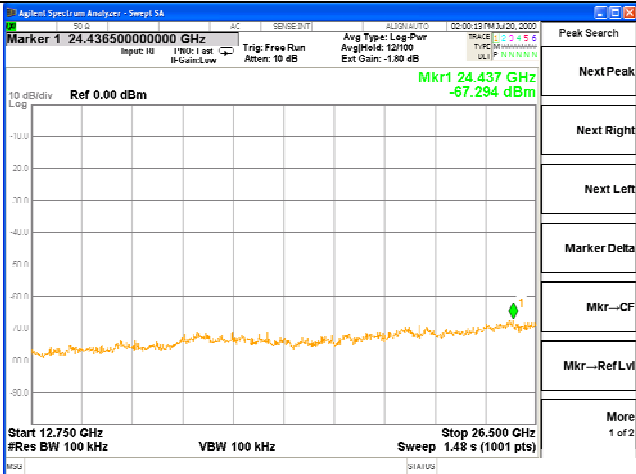
The test was performed to make a direct field strength measurement at the bandedge frequencies. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209. There is a restricted band starting at 2483.5 MHz and another restricted band from 2310 - 2390 MHz.

All emissions below noise floor of 7 dBuV/m.

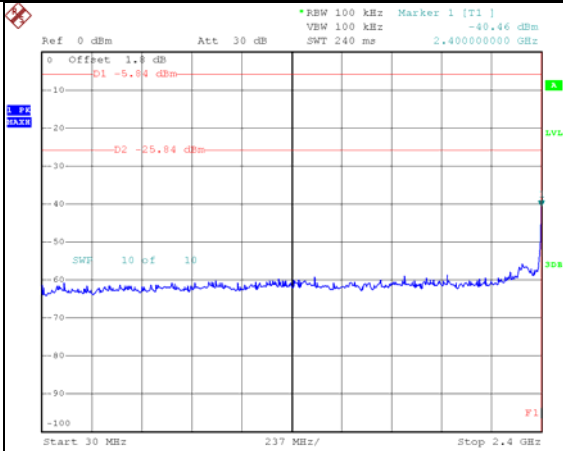
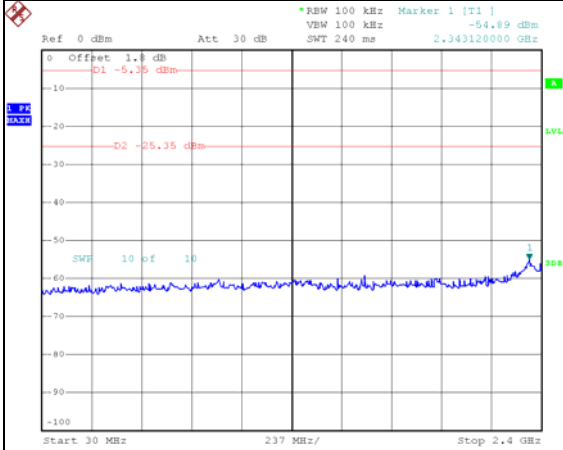
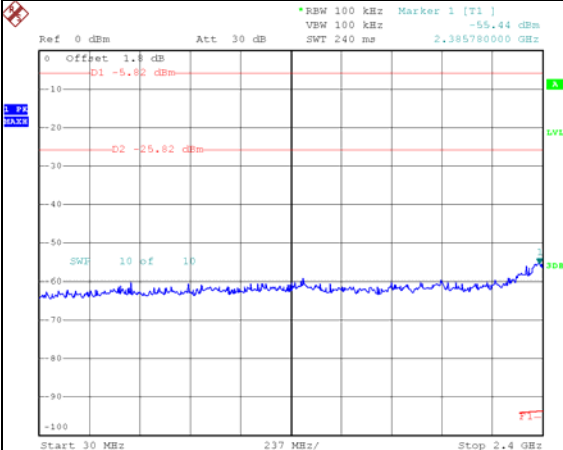
Plots of Conducted Emission

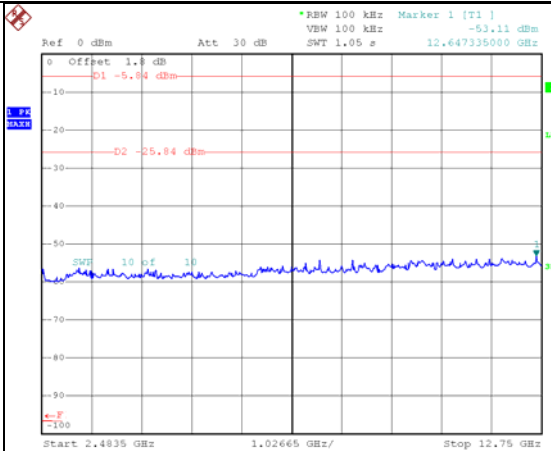
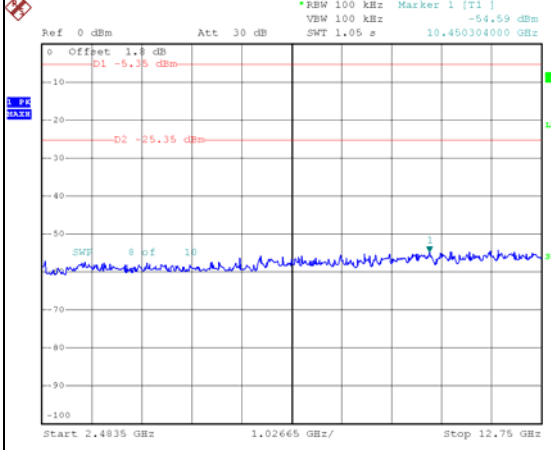
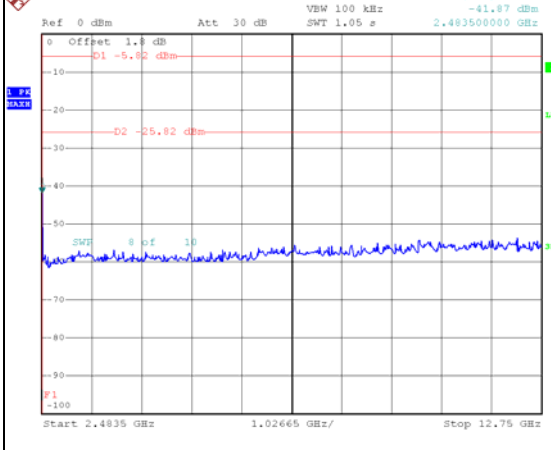
Frequency	30 MHz ~ 2400 MHz (802.11b)	
2412 MHz « 20dBc	 <p>Date: 7.NOV.2009 16:01:32</p>	
2442 MHz « 20dBc	 <p>Date: 7.NOV.2009 16:13:12</p>	
2472 MHz « 20dBc	 <p>Date: 7.NOV.2009 16:47:06</p>	

Frequency	2483.5 MHz ~ 12.75 GHz(802.11b)	
2412 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -53.92 dBm SWT 1.05 s 11.620685000 GHz</p> <p>0 Off D1 0.51 dBm Marker 2 [T1] -53.96 dBm 10.960220000 GHz Marker 3 [T1] -55.80 dBm 4.824262000 GHz</p> <p>Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 16:02:59</p>	
2442 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -54.41 dBm SWT 1.05 s 12.421472000 GHz</p> <p>0 Off D1 1.47 dBm -54.41 dBm 9.0 f 10 Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 16:13:48</p>	
2472 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -49.79 dBm SWT 1.05 s 2.483500000 GHz</p> <p>0 Off D1 0.43 dBm -49.79 dBm 10.0 f 10 Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 16:47:50</p>	

Frequency	12.75 GHz ~ 26.5 GHz(802.11b)
2412 MHz « 20dBc	
2442 MHz « 20dBc	
2472 MHz « 20dBc	

Plots of Conducted Emission

Frequency	30 MHz ~ 2400 MHz (802.11g)		
2412 MHz « 20dBc	 <p>Date: 7.NOV.2009 17:00:56</p>		
2442 MHz « 20dBc	 <p>Date: 7.NOV.2009 17:13:20</p>		
2472 MHz « 20dBc	 <p>Date: 7.NOV.2009 17:22:27</p>		

Frequency	2483.5 MHz ~ 12.75 GHz(802.11g)	
2412 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -53.11 dBm SWT 1.05 s 12.647335000 GHz</p> <p>0 Offset 1.8 dB D1 -5.84 dBm D2 -25.84 dBm</p> <p>SWT 10 of 10</p> <p>Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 17:02:28</p>	
2442 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -54.59 dBm SWT 1.05 s 10.450104000 GHz</p> <p>0 Offset 1.8 dB D1 -5.35 dBm D2 -25.35 dBm</p> <p>SWT 8 of 10</p> <p>Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 17:13:49</p>	
2472 MHz « 20dBc	 <p>Ref 0 dBm Att 30 dB *RBW 100 kHz Marker 1 [T1] VSW 100 kHz -41.87 dBm SWT 1.05 s 2.483500000 GHz</p> <p>0 Offset 1.8 dB D1 -5.82 dBm D2 -25.82 dBm</p> <p>SWT 8 of 10</p> <p>Start 2.4835 GHz 1.02665 GHz/ Stop 12.75 GHz</p> <p>Date: 7.NOV.2009 17:23:05</p>	

Frequency	12.75 GHz ~ 26.5 GHz(802.11g)
2412 MHz « 20dBc	<p>Agilent Spectrum Analyzer - Sweep 54</p> <p>Marker 1 24.987750000000 GHz</p> <p>Input: RF Trig: Free Run Attenu: 10 dB</p> <p>Avg Type: Log-Pwr AvgHold: 8/100 Ext Gain: -1.80 dB</p> <p>Ref 0.00 dBm</p> <p>Mkr1 24.988 GHz -66.878 dBm</p> <p>Start 12.750 GHz Stop 26.500 GHz</p> <p>#Res BW 100 kHz VBW 100 kHz Sweep 1.48 s (1001 pts)</p> <p>Peak Search: Next Peak, Next Right, Next Left, Marker Delta, Mkr--CF, Mkr--RefLvl, More 1 of 2</p>
2442 MHz « 20dBc	<p>Agilent Spectrum Analyzer - Sweep 54</p> <p>Marker 1 24.105750000000 GHz</p> <p>Input: RF Trig: Free Run Attenu: 10 dB</p> <p>Avg Type: Log-Pwr AvgHold: 8/100 Ext Gain: -1.80 dB</p> <p>Ref 0.00 dBm</p> <p>Mkr1 24.106 GHz -66.845 dBm</p> <p>Start 12.750 GHz Stop 26.500 GHz</p> <p>#Res BW 100 kHz VBW 100 kHz Sweep 1.48 s (1001 pts)</p> <p>Peak Search: Next Peak, Next Right, Next Left, Marker Delta, Mkr--CF, Mkr--RefLvl, More 1 of 2</p>
2472 MHz « 20dBc	<p>Agilent Spectrum Analyzer - Sweep 54</p> <p>Marker 1 23.824000000000 GHz</p> <p>Input: RF Trig: Free Run Attenu: 10 dB</p> <p>Avg Type: Log-Pwr AvgHold: 8/100 Ext Gain: -1.80 dB</p> <p>Ref 0.00 dBm</p> <p>Mkr1 23.824 GHz -67.642 dBm</p> <p>Start 12.750 GHz Stop 26.500 GHz</p> <p>#Res BW 100 kHz VBW 100 kHz Sweep 1.48 s (1001 pts)</p> <p>Peak Search: Next Peak, Next Right, Next Left, Marker Delta, Mkr--CF, Mkr--RefLvl, More 1 of 2</p>