Test Report

Product Name	Digital media player module
Model No	cm870-3
FCC ID.	PPQ-NM100BB

Applicant	Lite-On TECHNOLOGY CORP.
Address	4F,90,Chien 1 Road,Chung-Ho,Taipei Hsien 235,Taiwan,R.O.C.

Date of Receipt	June. 05, 2009
Issue Date	July. 01, 2009
Report No.	096107R-RFUSP05V01
Report Version	V1.0

Test Report Certification

Issue Date: July. 01, 2009
Report No.: 096107R-RFUSP05V01

Accredited by NIST (NVLAP)
NVLAP Lab Code: 200533-0

Product Name	Digital media player module
Applicant	Lite-On TECHNOLOGY CORP.
Address	4F,90,Chien 1 Road,Chung-Ho,Taipei Hsien 235,Taiwan,R.O.C.
Manufacturer	DONG GUAN G-COM COMPUTER CO., LTD.
Model No.	cm870-3
Rated Voltage	AC 120V/60Hz
Working Voltage	DC 3.3V
Trade Name	BridgeCo
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2008 ANSI C63.4: 2003
Test Result	Complied

NVLAP Lab Code: 200533-0

The test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : Leven Huang
(Adm. Specialist / Leven Huang)

Tested By : Johnson Liao
(Engineer / Johnson Liao)

Approved By :
(Manager / Vincent Lin)

Testing Laboratory
0914

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Digital media player module
Trade Name	BridgeCo
Model No.	cm870-3
FCC ID.	PPQ-NM100BB
Frequency Range	2412-2462MHz
Number of Channels	802.11b/g: 11
Data Speed	802.11b: 1 - 11Mbps, 802.11g: 6 - 54Mbps
Type of Modulation	802.11b:DSSS DBPSK, DQPSK, CCK 802.11g: OFDM BPSK, QPSK, 16QAM, 64QAM
Antenna Type	Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WANSHIH	UPW1121A1	Dipole	2.57dBi in 2.4 GHz

802.11b/g Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

Note:

1. The EUT is a Digital media player module with a built-in 2.4GHz WLAN transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 11Mbps、802.11g is 6Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

1.2. Operational Description

The EUT is a Digital media player module with 11 channels. This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps. The device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b) or eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps. The device of RF carrier is OFDM (IEEE 802.11g).

This Digital media player module, compliant with IEEE 802.11b and IEEE 802.11g, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operation in 2.4GHz Direst Sequence Spread Spectrum (DSSS) radio transmission, the Digital media player module Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b and IEEE 802.11g network.

Another information please refer to users manual.

Test Mode:	Mode 1: Transmitter (802.11b 11Mbps)
	Mode 2: Transmitter (802.11g 6Mbps)

1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Test Fixture	Lite-On	N/A	N/A	N/A

Signal Cable Type	Signal cable Description
N/A	

1.4. Configuration of Tested System

1.5. EUT Exercise Software

(1)	Setup the EUT as shown in section 1.4
(2)	The Notebook connects test fixture via RS232 interface.
(3)	Set the test mode, the test channel and the data rate.
(4)	Verify that the EUT works properly

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://tw.quietek.com/modules/myalbum/
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

Testing Laboratory
0914

2. Conducted Emission

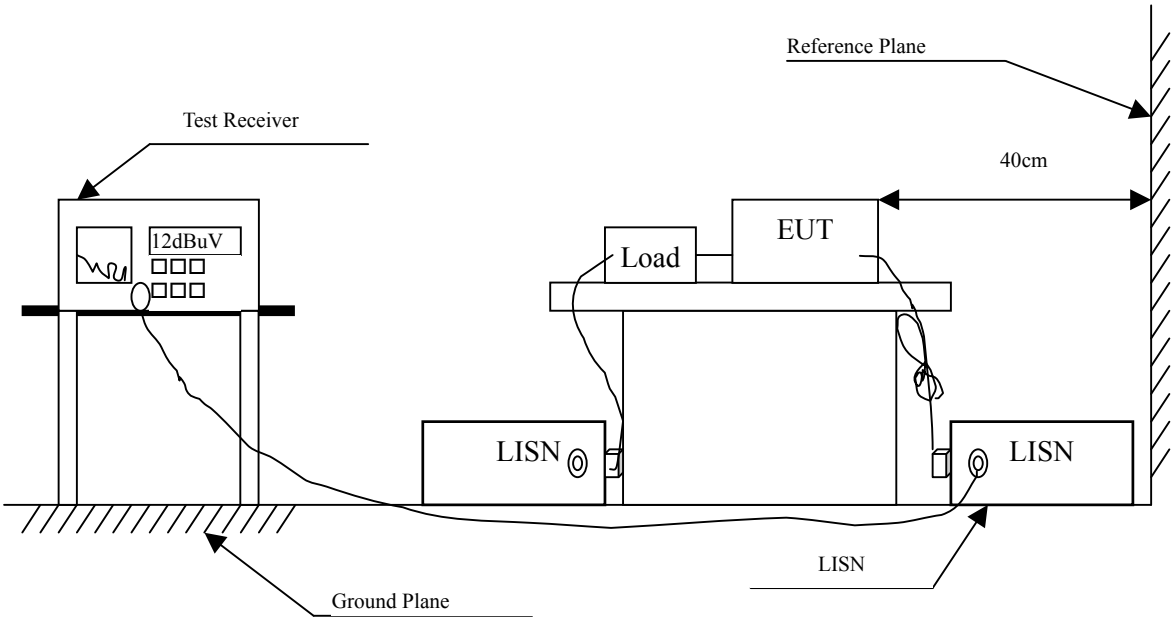
2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2009	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2009	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2009	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2009	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : Digital media player module
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.377	9.650	24.700	34.350	-25.164	59.514
0.759	9.644	19.830	29.474	-26.526	56.000
1.138	9.670	24.640	34.310	-21.690	56.000
1.502	9.678	6.890	16.568	-39.432	56.000
2.255	9.680	3.370	13.050	-42.950	56.000
3.154	9.690	20.240	29.930	-26.070	56.000
Average					
0.377	9.650	18.180	27.830	-21.684	49.514
0.759	9.644	13.810	23.454	-22.546	46.000
1.138	9.670	15.940	25.610	-20.390	46.000
1.502	9.678	-1.880	7.798	-38.202	46.000
2.255	9.680	-3.110	6.570	-39.430	46.000
3.154	9.690	15.540	25.230	-20.770	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Digital media player module
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.380	9.650	28.530	38.180	-21.249	59.429
0.779	9.670	17.790	27.460	-28.540	56.000
1.154	9.670	26.800	36.470	-19.530	56.000
1.537	9.680	23.090	32.770	-23.230	56.000
1.935	9.680	18.720	28.400	-27.600	56.000
3.154	9.690	20.050	29.740	-26.260	56.000
Average					
0.380	9.650	21.260	30.910	-18.519	49.429
0.779	9.670	9.520	19.190	-26.810	46.000
1.154	9.670	23.190	32.860	-13.140	46.000
1.537	9.680	18.080	27.760	-18.240	46.000
1.935	9.680	12.420	22.100	-23.900	46.000
3.154	9.690	15.420	25.110	-20.890	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Digital media player module
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.388	9.650	30.850	40.500	-18.700	59.200
0.763	9.645	17.150	26.795	-29.205	56.000
1.150	9.670	24.680	34.350	-21.650	56.000
1.548	9.680	23.670	33.350	-22.650	56.000
1.935	9.680	19.590	29.270	-26.730	56.000
3.158	9.690	15.110	24.800	-31.200	56.000
Average					
0.388	9.650	24.660	34.310	-14.890	49.200
0.763	9.645	8.230	17.875	-28.125	46.000
1.150	9.670	16.950	26.620	-19.380	46.000
1.548	9.680	19.280	28.960	-17.040	46.000
1.935	9.680	14.510	24.190	-21.810	46.000
3.158	9.690	9.710	19.400	-26.600	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Digital media player module
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.388	9.650	31.010	40.660	-18.540	59.200
0.779	9.670	21.500	31.170	-24.830	56.000
1.150	9.670	23.000	32.670	-23.330	56.000
1.552	9.680	23.960	33.640	-22.360	56.000
1.935	9.680	19.770	29.450	-26.550	56.000
2.802	9.690	19.620	29.310	-26.690	56.000
Average					
0.388	9.650	25.220	34.870	-14.330	49.200
0.779	9.670	16.610	26.280	-19.720	46.000
1.150	9.670	13.230	22.900	-23.100	46.000
1.552	9.680	19.600	29.280	-16.720	46.000
1.935	9.680	14.790	24.470	-21.530	46.000
2.802	9.690	16.200	25.890	-20.110	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Equipment

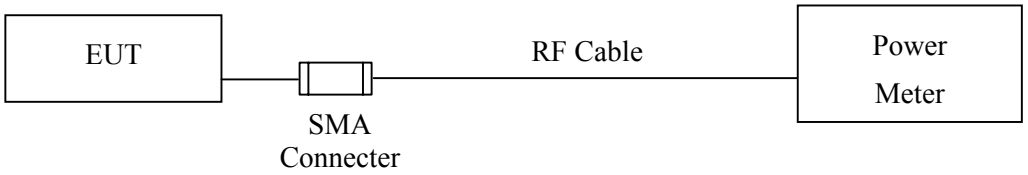
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2009
X	Power Sensor	Anritsu	MA2491A/034457	May, 2009

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup

Conducted Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : Digital media player module
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

Cable Loss=0.5dB		Output Power (dBm)					
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit
		1	2	5.5	11	11	
1	2412.00	13.3	13.31	13.3	13.33	15.80	1Watt= 30 dBm
6	2437.00	--	--	--	13.49	15.94	1Watt= 30 dBm
11	2462.00	--	--	--	13.51	15.94	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product : Digital media player module
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

Cable Loss=0.5dB		Output Power (dBm)									
Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit
		6	9	12	18	24	36	48	54	6	
1	2412.00	11.87	11.45	11.06	10.53	10.21	9.26	8.68	8.43	21.67	1Watt= 30 dBm
6	2437.00	11.62	--	--	--	--	--	--	--	21.50	1Watt= 30 dBm
11	2462.00	11.29	--	--	--	--	--	--	--	21.25	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the radiated emission test:

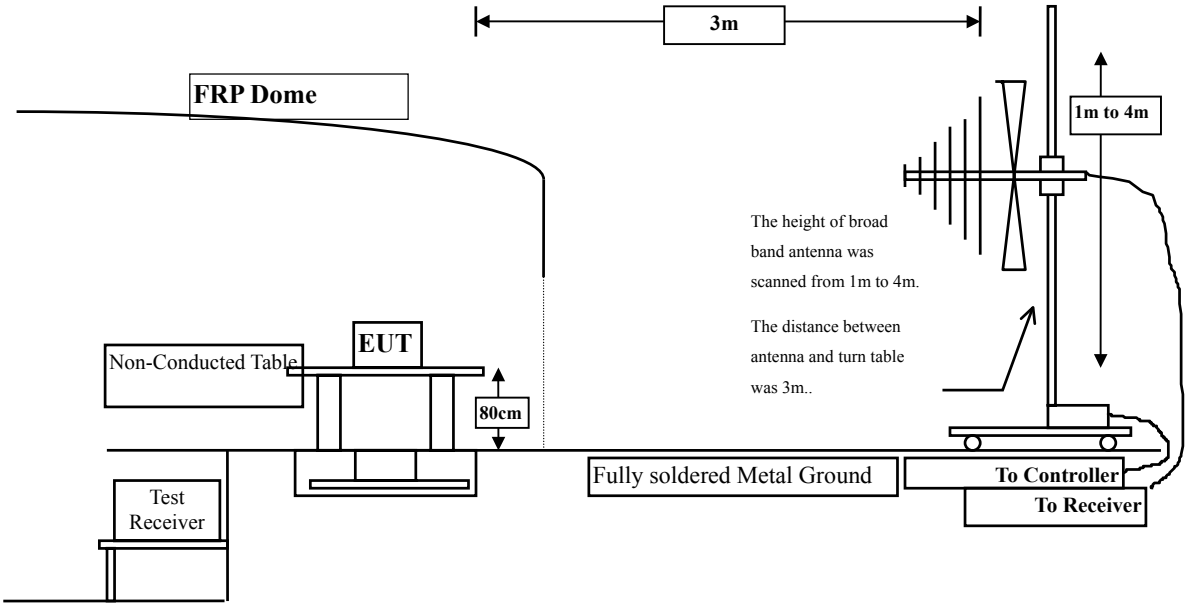
Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2008
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2008
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2009
	X	Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2008
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2008
	X	Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2008
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2009
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

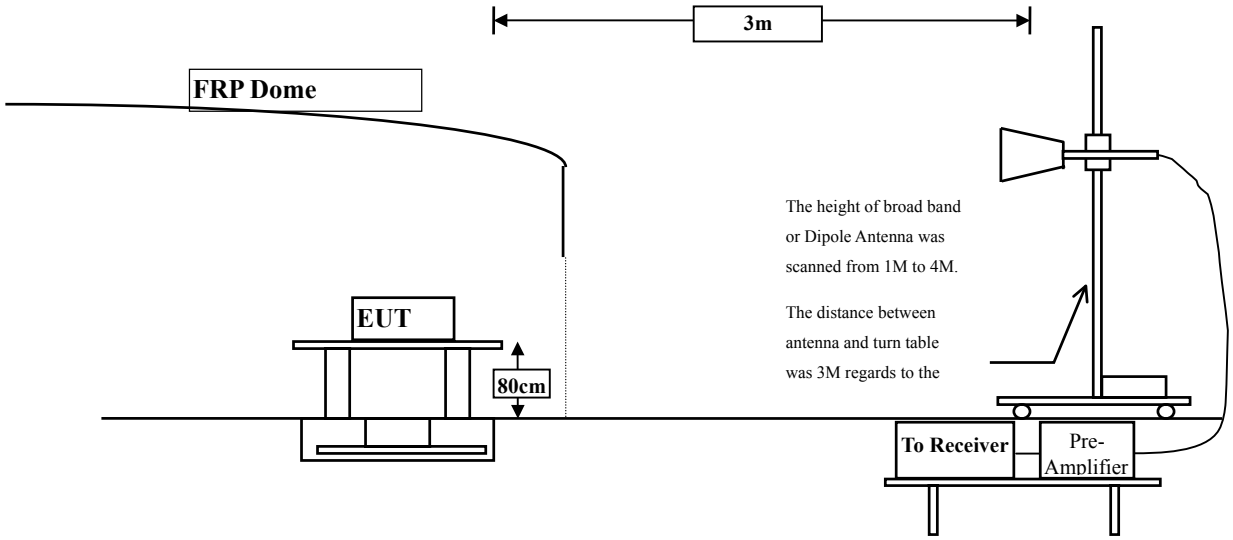
2. The test instruments marked with "X" are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.
The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.
Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.
The measurement is divided into the Preliminary Measurement and the Final Measurement.
The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.
The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.
The measurement frequency range from 30MHz - 10th Harmonic of fundamental was investigated.

4.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2412MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal					
	Peak Detector:					
	4824.000	5.362	45.630	50.991	-23.009	74.000
	7236.000	11.867	43.230	55.097	-18.903	74.000
*	9648.000	15.856	45.820	61.676	-18.289	79.965
	Average					
	Detector:					
	7236.000	11.867	30.040	41.907	-12.093	54.000
*	9648.000	15.856	32.350	48.206	-27.767	75.973
	Vertical					
	Peak Detector:					
	4824.000	5.362	45.470	50.831	-23.169	74.000
	7236.000	11.867	44.150	56.017	-17.983	74.000
*	9648.000	15.856	45.910	61.766	-26.027	87.793
	Average					
	Detector:					
	7236.000	11.867	30.070	41.937	-12.063	54.000
*	9648.000	15.856	34.790	50.646	-33.260	83.906

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437 MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal Peak Detector:					
	4874.000	5.465	45.440	50.906	-23.094	74.000
	7311.000	12.030	44.390	56.420	-17.580	74.000
*	9748.000	16.070	45.620	61.690	-17.433	79.123
	Average Detector:					
	7311.000	12.030	29.960	41.990	-12.010	54.000
*	9748.000	16.070	32.980	49.050	-25.797	74.847
	Vertical Peak Detector:					
	4874.000	5.465	45.370	50.836	-23.164	74.000
	7311.000	12.030	44.300	56.330	-17.670	74.000
*	9748.000	16.070	45.690	61.760	-27.133	88.893
	Average Detector:					
	7311.000	12.030	29.950	41.980	-12.020	54.000
*	9748.000	16.070	37.810	53.880	-31.311	85.191

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2462 MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal Peak Detector:					
	4924.000	5.578	45.680	51.257	-22.743	74.000
	7386.000	12.211	44.190	56.402	-17.598	74.000
*	9848.000	16.292	44.440	60.732	-19.924	80.656
	Average Detector:					
	7386.000	12.211	29.980	42.192	-11.808	54.000
*	9848.000	16.292	32.640	48.932	-27.791	76.723
	Vertical Peak Detector:					
	4924.000	5.578	45.540	51.117	-22.883	74.000
	7386.000	12.211	44.340	56.552	-17.448	74.000
*	9848.000	16.292	44.850	61.142	-28.624	89.766
	Average Detector:					
	7386.000	12.211	30.000	42.212	-11.788	54.000
*	9848.000	16.292	37.270	53.562	-32.654	86.186

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal					
	Peak Detector:					
	4824.000	5.362	45.300	50.661	-23.339	74.000
	7236.000	11.867	43.670	55.537	-18.463	74.000
*	9648.000	15.856	45.200	61.056	-14.731	75.787
	Average					
	Detector:					
	7236.000	11.867	29.700	41.567	-12.433	54.000
*	9648.000	15.856	32.750	48.606	-11.480	60.086
	Vertical					
	Peak Detector:					
	4824.000	5.362	45.310	50.671	-23.329	74.000
	7236.000	11.867	44.440	56.307	-17.693	74.000
*	9648.000	15.856	46.240	62.096	-26.915	89.011
	Average					
	Detector:					
	7236.000	11.867	29.750	41.617	-12.383	54.000
*	9648.000	15.856	35.680	51.536	-20.911	72.447

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437 MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal					
	Peak Detector:					
	4874.000	5.465	45.570	51.036	-22.964	74.000
	7311.000	12.030	43.690	55.720	-18.280	74.000
*	9748.000	16.070	44.840	60.910	-12.648	73.558
	Average					
	Detector:					
	7311.000	12.030	29.690	41.720	-12.280	54.000
*	9748.000	16.070	32.720	48.790	-9.337	58.127
	Vertical					
	Peak Detector:					
	4874.000	5.465	45.350	50.816	-23.184	74.000
	7311.000	12.030	43.570	55.600	-18.400	74.000
*	9748.000	16.070	45.200	61.270	-28.483	89.753
	Average					
	Detector:					
	7311.000	12.030	29.660	41.690	-12.310	54.000
*	9748.000	16.070	37.120	53.190	-19.753	72.943

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462 MHz)

	Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
	MHz	dB	dBuV	dBuV/m	dB	dBuV/m
	Horizontal Peak Detector:					
	4924.000	5.578	45.900	51.477	-22.523	74.000
	7386.000	12.211	43.670	55.882	-18.118	74.000
*	9848.000	16.292	44.730	61.022	-14.899	75.921
	Average Detector:					
	7386.000	12.211	30.030	42.242	-11.758	54.000
*	9848.000	16.292	33.280	49.572	-10.501	60.073
	Vertical Peak Detector:					
	4924.000	5.578	45.980	51.557	-22.443	74.000
	7386.000	12.211	43.700	55.912	-18.088	74.000
*	9848.000	16.292	45.750	62.042	-27.305	89.347
	Average Detector:					
	7386.000	12.211	29.970	42.182	-11.818	54.000
*	9848.000	16.292	35.850	52.142	-20.152	72.294

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means non-restricted bands, limit=fundamental level down 20dBc.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2412 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2412.900	36.613	63.352	99.965	--	--
Average Detector:					
2414.700	36.614	59.360	95.973	--	--
Vertical Peak Detector:					
2412.900	35.635	72.158	107.793	--	--
Average Detector:					
2412.800	35.635	68.271	103.906	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2435.900	36.611	62.512	99.123	--	--
Average Detector:					
2436.200	36.612	58.236	94.847	--	--
Vertical Peak Detector:					
2435.900	35.782	73.111	108.893	--	--
Average Detector:					
2436.200	35.785	69.407	105.191	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2460.900	36.693	63.963	100.656	--	--
Average Detector:					
2461.200	36.695	60.028	96.723	--	--
Vertical Peak Detector:					
2462.900	36.045	73.721	109.766	--	--
Average Detector:					
2461.200	36.030	70.157	106.186	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2415.700	36.612	59.174	95.787	--	--
Average Detector:					
2417.500	36.613	43.473	80.086	--	--
Vertical Peak Detector:					
2415.700	35.653	73.357	109.011	--	--
Average Detector:					
2409.800	35.619	56.829	92.447	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2434.900	36.612	56.946	93.558	--	--
Average Detector:					
2432.500	36.613	41.514	78.127	--	--
Vertical Peak Detector:					
2440.800	35.811	73.941	109.753	--	--
Average Detector:					
2435.100	35.777	57.166	92.943	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Fundamental Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
2465.900	36.703	59.219	95.921	--	--
Average Detector:					
2459.800	36.688	43.386	80.073	--	--
Vertical Peak Detector:					
2465.900	36.068	73.280	109.347	--	--
Average Detector:					
2460.300	36.019	56.275	92.294	--	--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)(2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
350.741	-4.430	37.671	33.241	-12.759	46.000
479.980	-0.461	42.030	41.569	-4.431	46.000
527.635	0.941	34.383	35.324	-10.676	46.000
550.230	1.993	38.660	40.653	-5.347	46.000
752.300	3.889	37.000	40.889	-5.111	46.000
809.499	4.864	31.865	36.729	-9.271	46.000
Vertical					
479.990	-1.620	42.010	40.390	-5.610	46.000
550.220	-0.321	38.050	37.729	-8.271	46.000
591.784	0.735	36.168	36.903	-9.097	46.000
700.641	1.510	34.279	35.789	-10.211	46.000
720.000	1.716	36.960	38.677	-7.323	46.000
752.200	2.090	37.660	39.751	-6.249	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)(2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
368.236	-3.298	42.168	38.870	-7.130	46.000
449.880	-0.661	38.342	37.681	-8.319	46.000
480.250	-0.460	41.220	40.760	-5.240	46.000
600.500	4.290	32.010	36.300	-9.700	46.000
752.330	3.890	36.690	40.580	-5.420	46.000
863.928	4.473	30.734	35.207	-10.793	46.000
Vertical					
355.000	-5.147	36.220	31.073	-14.927	46.000
496.000	-1.600	37.230	35.630	-10.370	46.000
550.220	-0.321	38.990	38.669	-7.331	46.000
718.136	1.700	32.323	34.023	-11.977	46.000
961.122	6.060	34.788	40.848	-13.152	54.000
1000.000	6.220	34.527	40.747	-13.253	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the radiated emission tests:

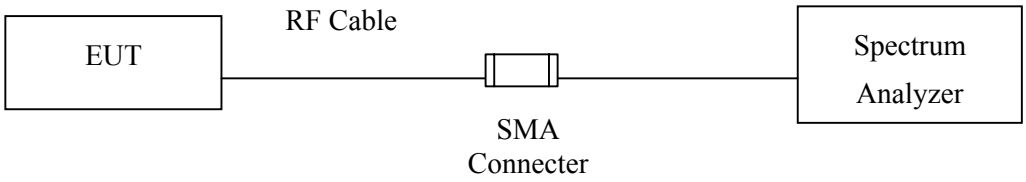
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2008
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2009

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Uncertainty

The measurement uncertainty
Conducted is defined as ± 1.27dB

5.6. Test Result of RF antenna conducted test

Product : Digital media player module
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

Channel 01 (2412MHz) 30MHz-25GHz

Channel 06 (2437MHz) 30MHz-25GHz

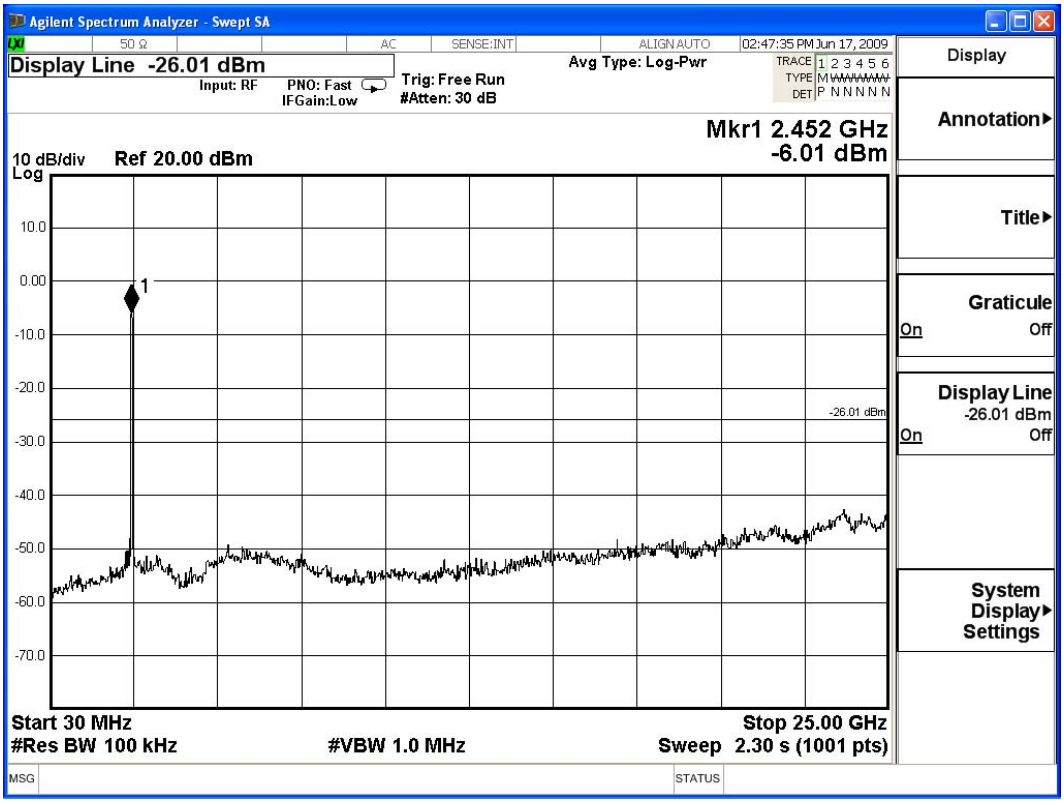
Channel 11 (2462MHz) 30MHz-25GHz

Product : Digital media player module
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

Channel 01 (2412MHz) 30MHz-25GHz

Channel 06 (2437MHz) 30MHz-25GHz

Channel 11 (2462MHz) 30MHz-25GHz



6. Band Edge

6.1. Test Equipment

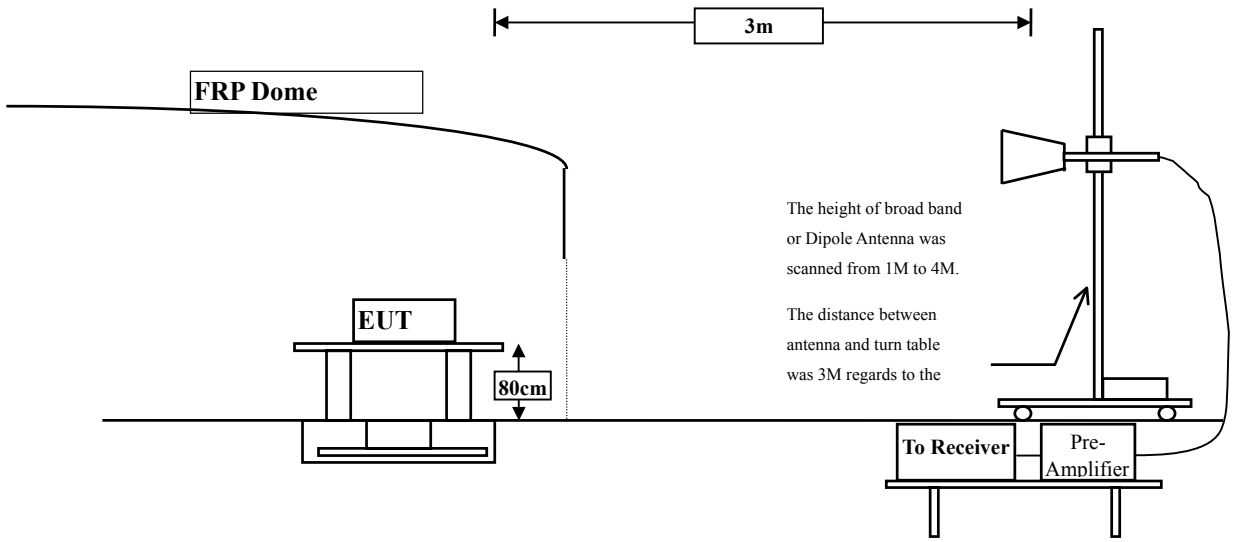
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2008
	X	Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2008
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2008
	X	Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2008
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2009
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2412.900	36.613	63.352	99.965	--	--	--
01 (Average)	2414.700	36.614	59.360	95.973	--	--	--

Figure Channel 01: Horizontal (Peak)

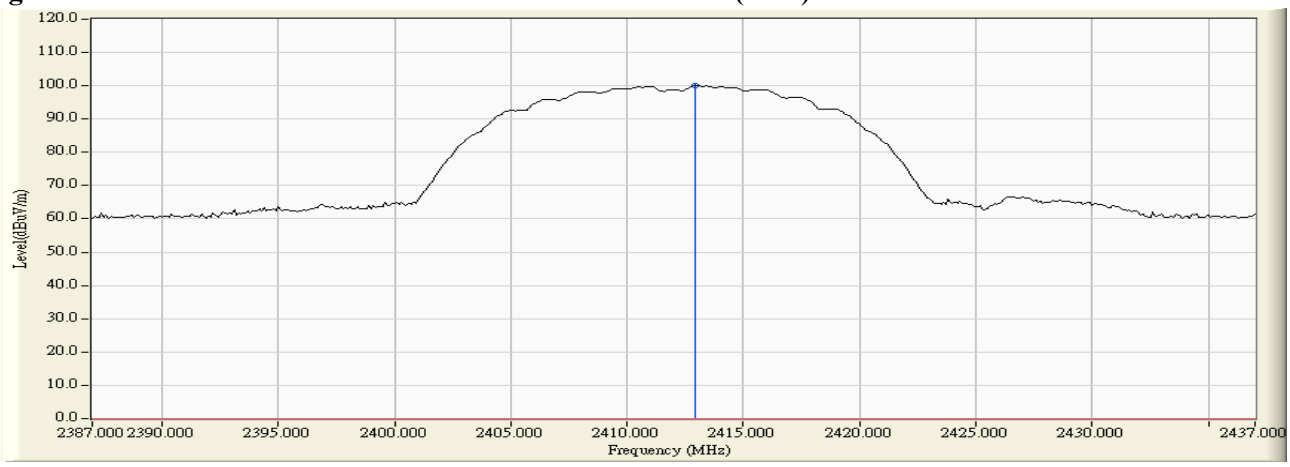
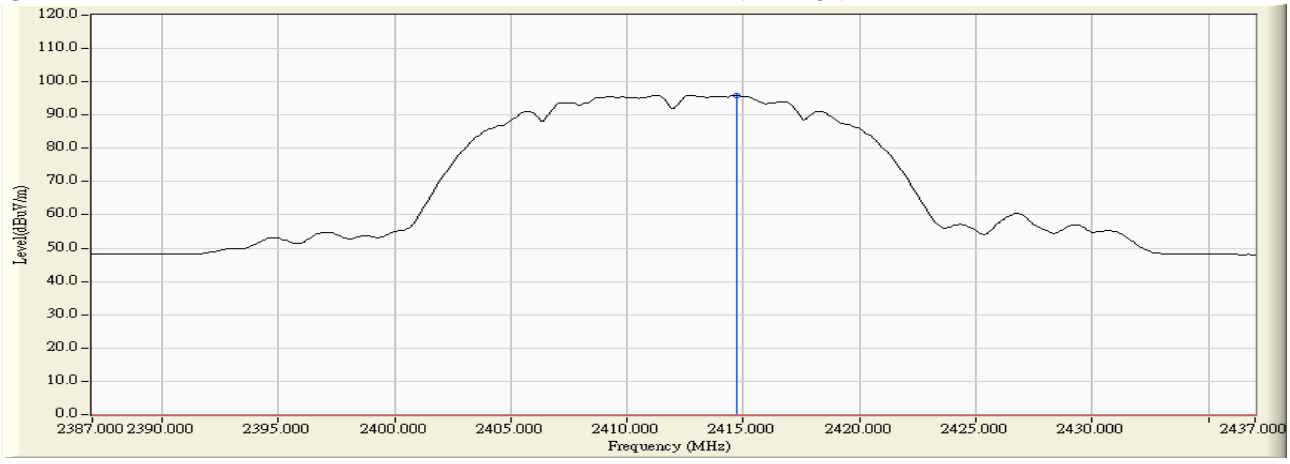


Figure Channel 01: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2412.900	35.635	72.158	107.793	--	--	--
01 (Average)	2412.800	35.635	68.271	103.906	--	--	--

Figure Channel 01: Vertical (Peak)

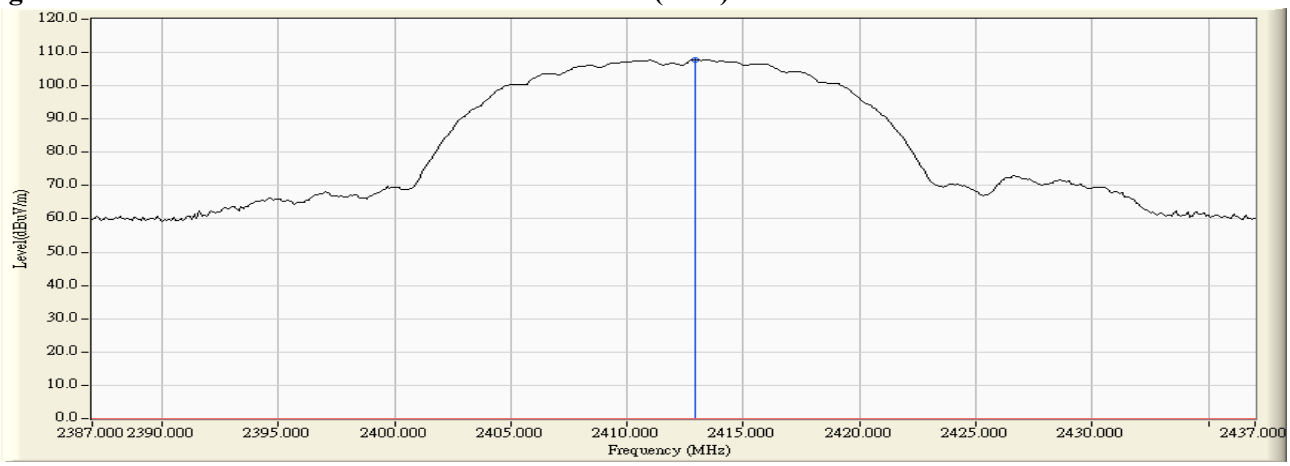
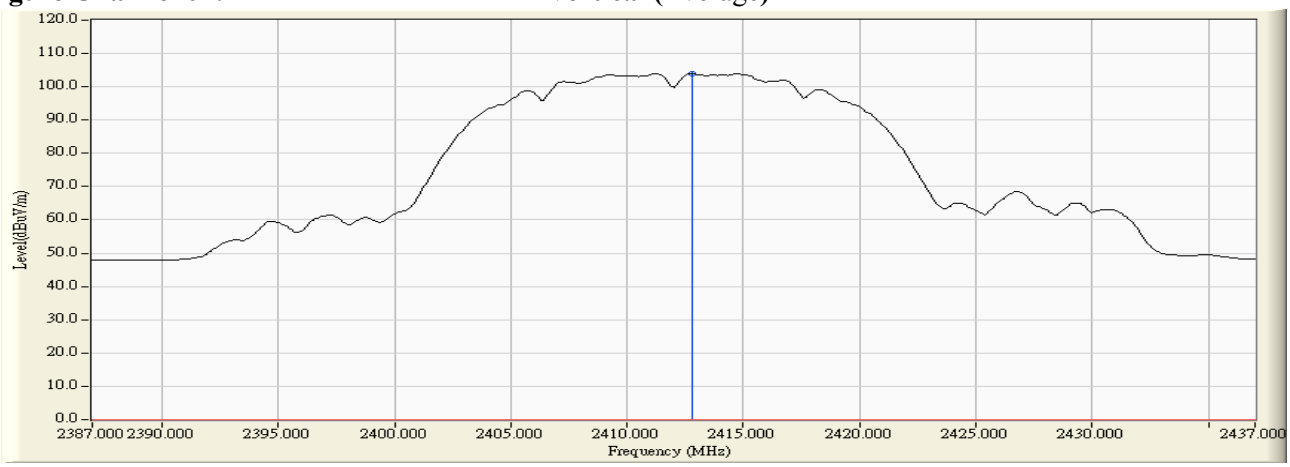


Figure Channel 01: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Marker Delta Method (Low band)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	36.613	63.352	99.965	Peak
Horizontal	2412	36.614	59.360	95.973	Average
Vertical	2412	35.635	72.158	107.793	Peak
Vertical	2412	35.635	68.271	103.906	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2343.8	99.965	51.02	48.945	Peak
Horizontal	2343.3	95.973	53.79	42.183	Average
Vertical	2343.8	107.793	51.02	56.773	Peak
Vertical	2343.3	103.906	53.79	50.116	Average

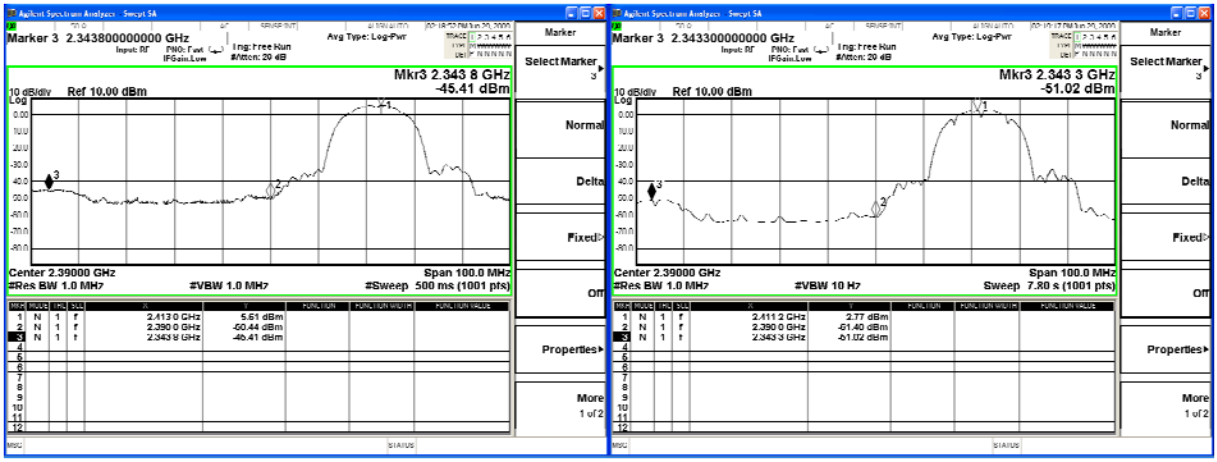
Note:

1. The Marker Delta Method is refer to FCC DA 00-705.
2. The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

   Band Edge field Strength = F - Δ

   F = Fundamental field Strength (Peak or Average)

   Δ = Conducted Band Edge Delta (Peak or Average)
3. AVG Measurement=Peak Measurement + Duty Cycle.
4. If Duty Cycle is smaller than -20dB,based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.



Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2460.900	36.693	63.963	100.656	--	--	--
11(Average)	2461.200	36.695	60.028	96.723	--	--	--

Figure Channel 11: Horizontal (Peak)

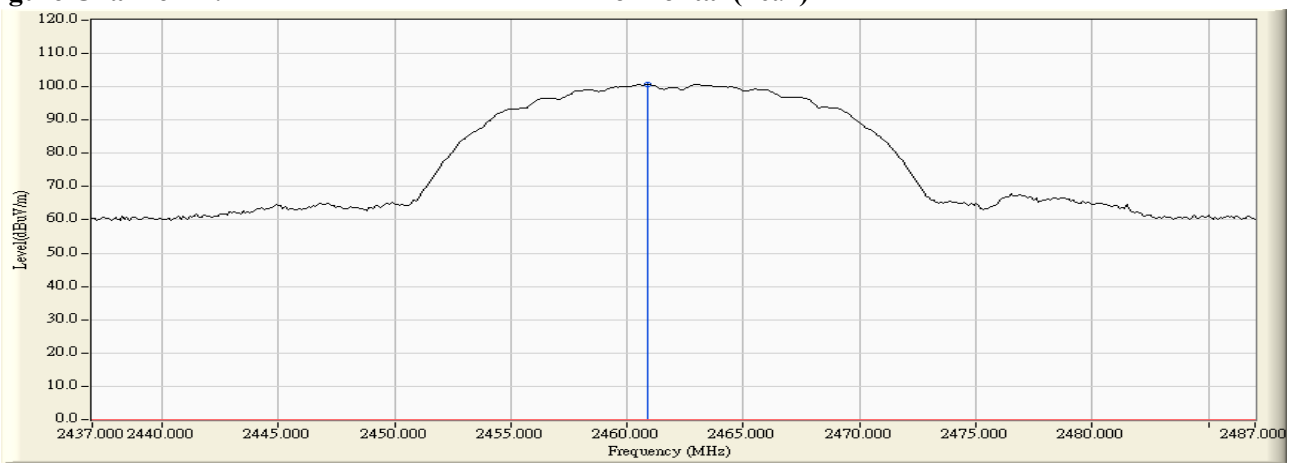
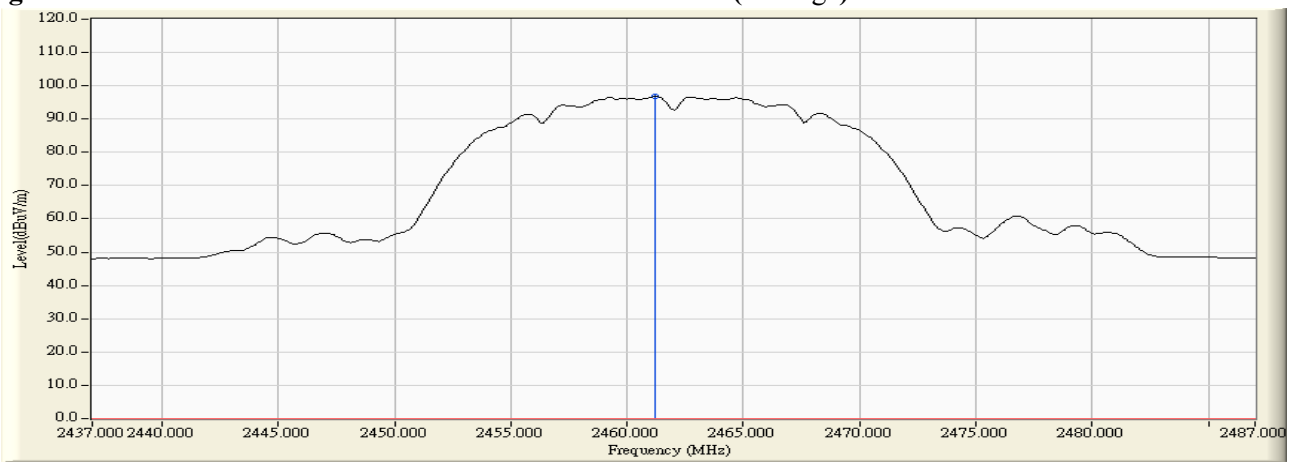


Figure Channel 11: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.900	36.045	73.721	109.766	--	--	--
11(Average)	2461.200	36.030	70.157	106.186	--	--	--

Figure Channel 11: **Vertical (**Peak**)**

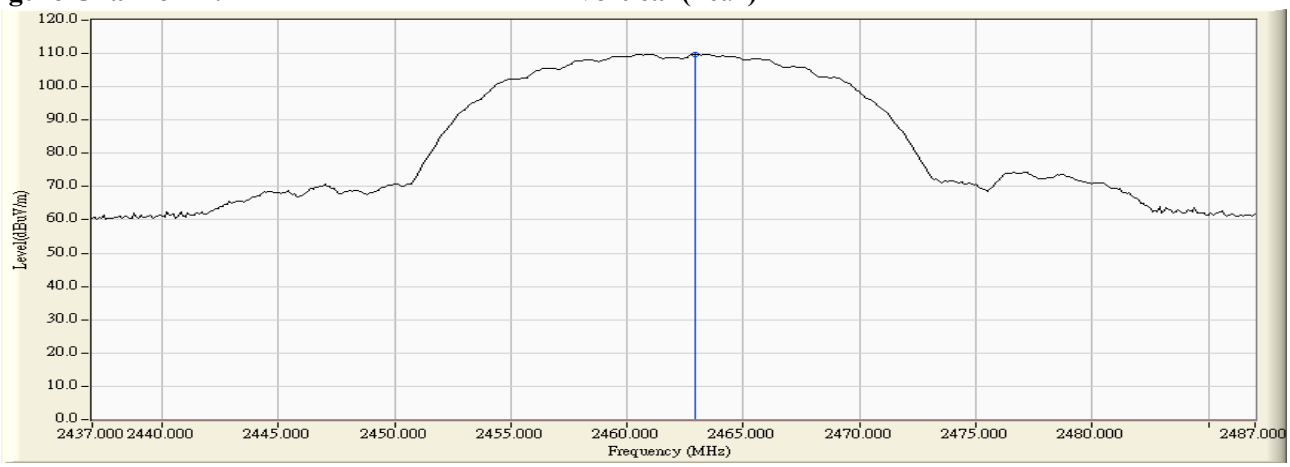
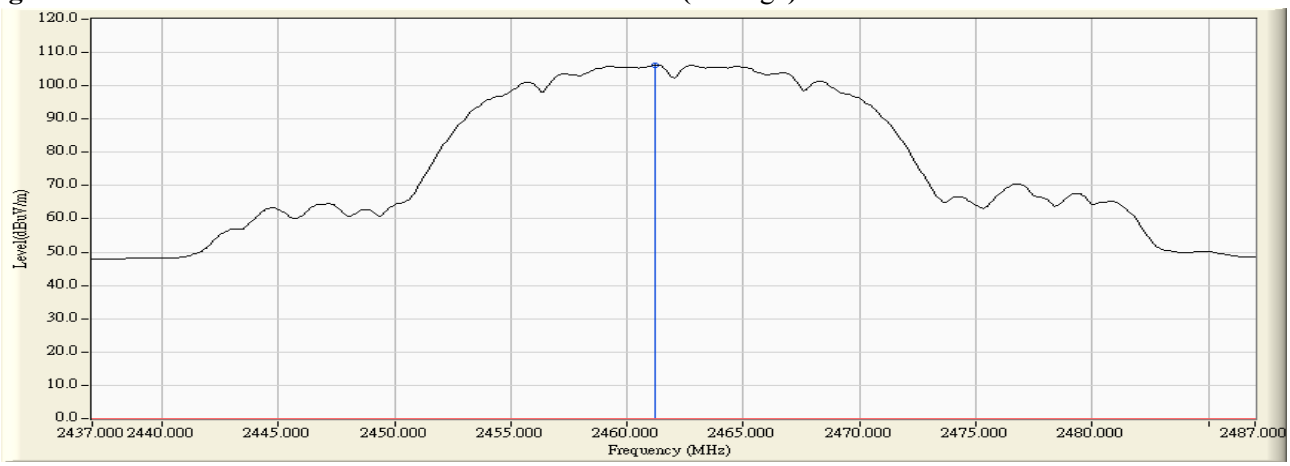


Figure Channel 11: **Vertical (**Average**)**



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Marker Delta Method (Low band)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	63.963	36.693	100.656	Peak
Horizontal	2462	60.028	36.695	96.723	Average
Vertical	2462	73.721	36.045	109.766	Peak
Vertical	2462	70.157	36.030	106.186	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2484.7	100.656	52.04	48.616	Peak
Horizontal	2484.6	96.723	58.04	38.683	Average
Vertical	2484.7	109.766	52.04	57.726	Peak
Vertical	2484.6	106.186	58.04	48.146	Average

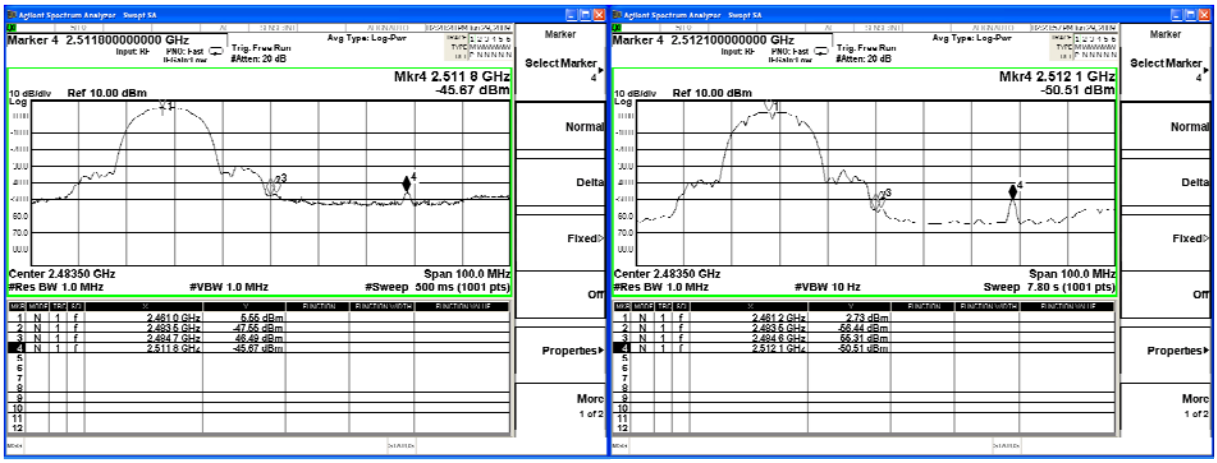
Note:

1. The Marker Delta Method is refer to FCC DA 00-705.
2. The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

   Band Edge field Strength = F - Δ

   F = Fundamental field Strength (Peak or Average)

   Δ = Conducted Band Edge Delta (Peak or Average)
3. AVG Measurement=Peak Measurement + Duty Cycle.
4. If Duty Cycle is smaller than -20dB,based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.



Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2415.700	36.612	59.174	95.787	--	--	--
01 (Average)	2417.500	36.613	43.473	80.086	--	--	--

Figure Channel 01: **Horizontal (**Peak**)**

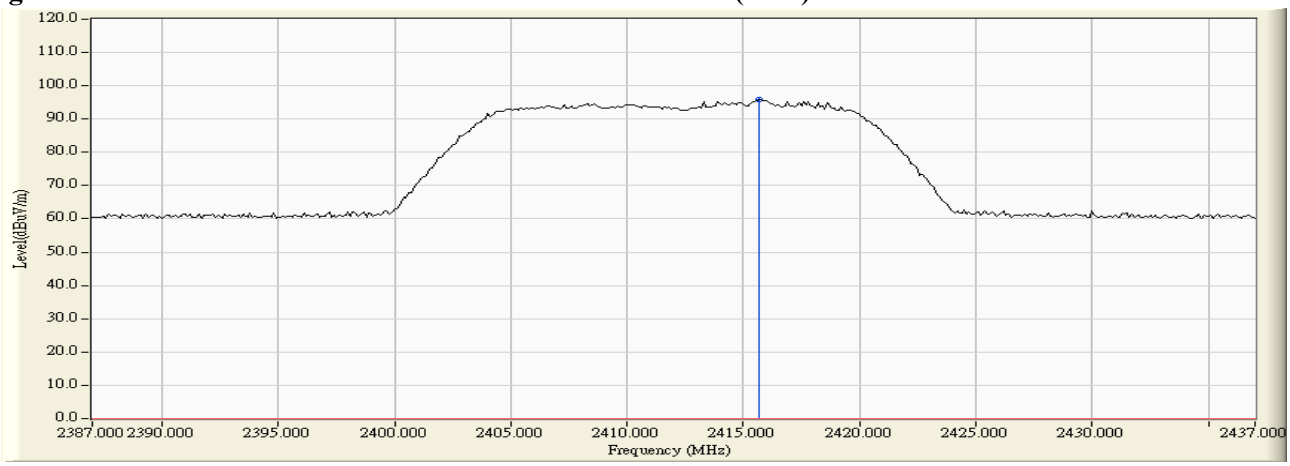
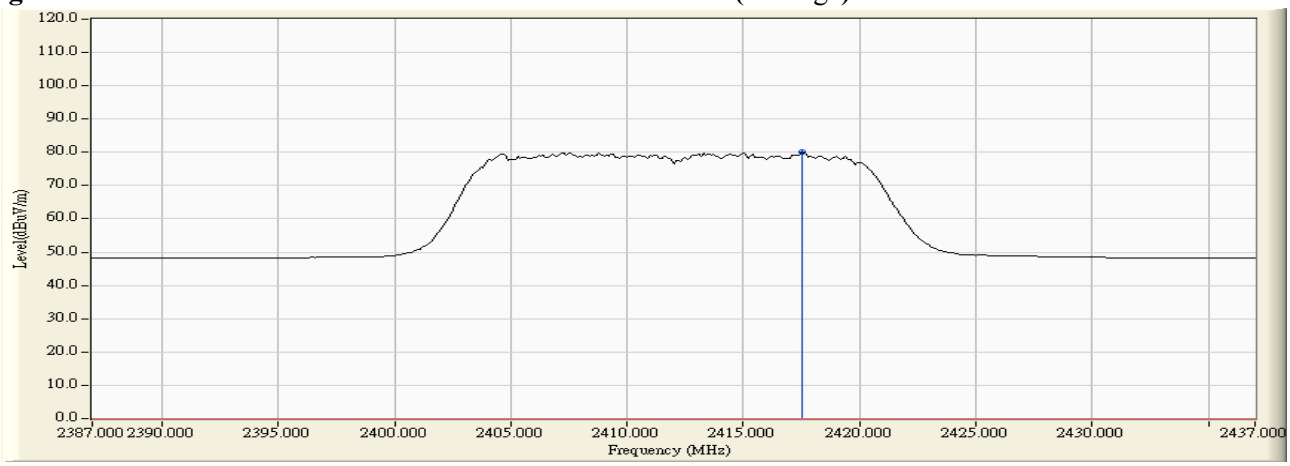


Figure Channel 01: **Horizontal (**Average**)**



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2415.700	35.653	73.357	109.011	--	--	--
01 (Average)	2409.800	35.619	56.829	92.447	--	--	--

Figure Channel 01: Vertical (Peak)

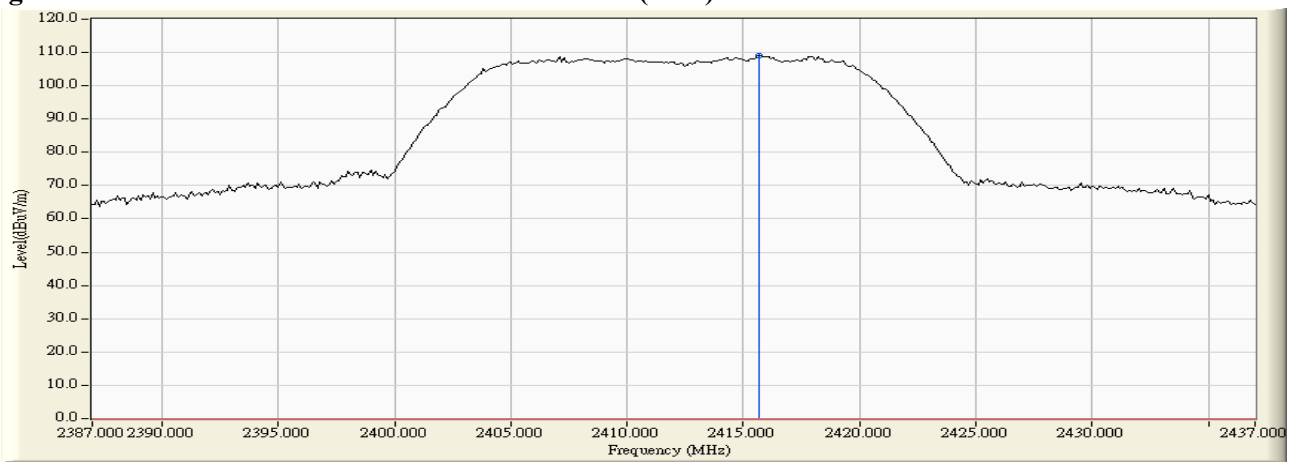
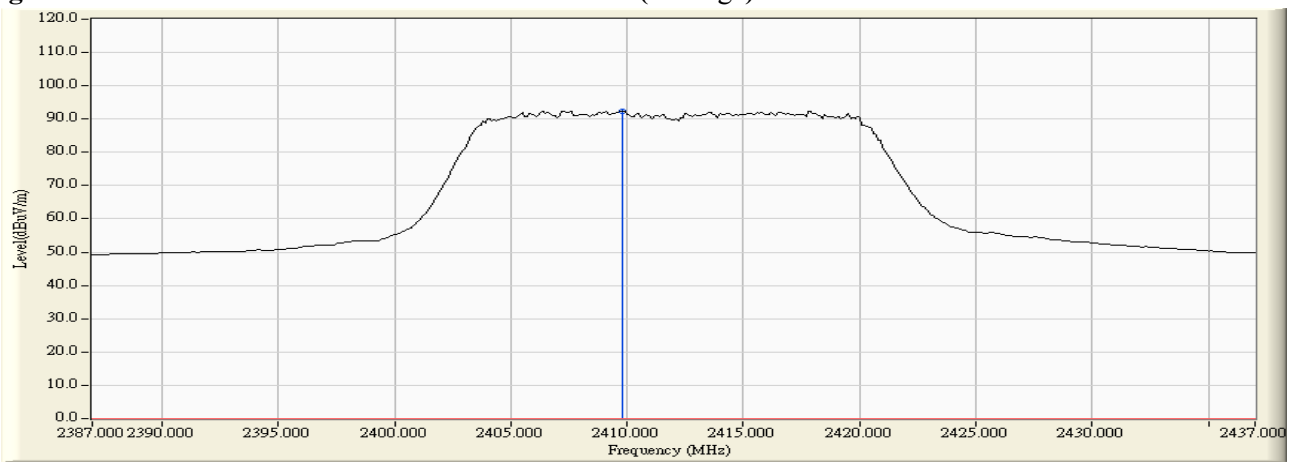


Figure Channel 01: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Marker Delta Method (Low band)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	36.612	59.174	95.787	Peak
Horizontal	2412	36.613	43.473	90.086	Average
Vertical	2412	35.653	73.357	109.011	Peak
Vertical	2412	35.619	56.829	92.447	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2389.0	95.787	40.59	55.197	Peak
Horizontal	2345.9	90.086	43.86	46.226	Average
Vertical	2389.0	109.011	40.59	68.421	Peak
Vertical	2345.9	92.447	43.86	48.587	Average

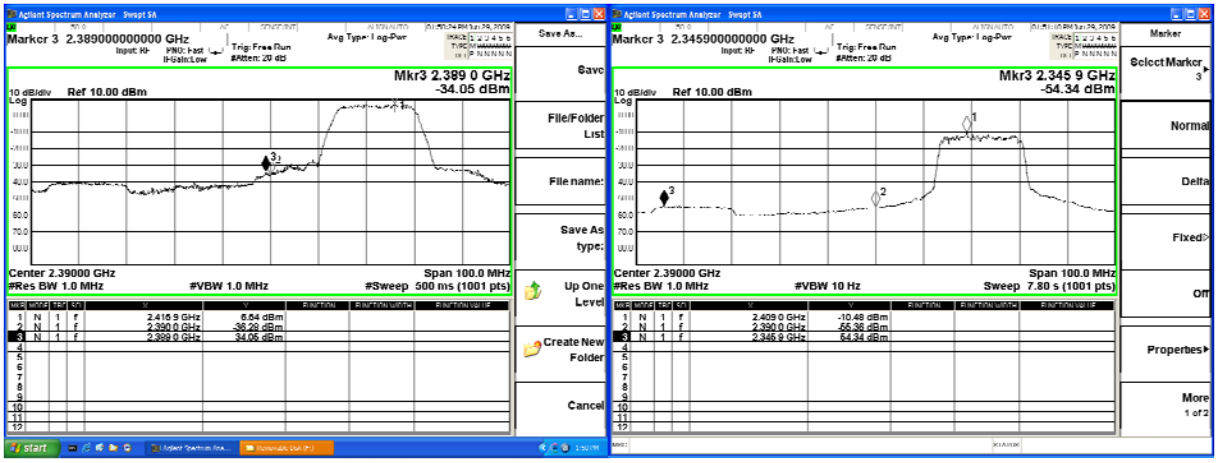
Note:

1. The Marker Delta Method is refer to FCC DA 00-705.
2. The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

   Band Edge field Strength = F - Δ

   F = Fundamental field Strength (Peak or Average)

   Δ = Conducted Band Edge Delta (Peak or Average)
3. AVG Measurement=Peak Measurement + Duty Cycle.
4. If Duty Cycle is smaller than -20dB,based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.



Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2465.900	36.703	59.219	95.921	--	--	--
11 (Average)	2459.800	36.688	43.386	80.073	--	--	--

Figure Channel 11: Horizontal (Peak)

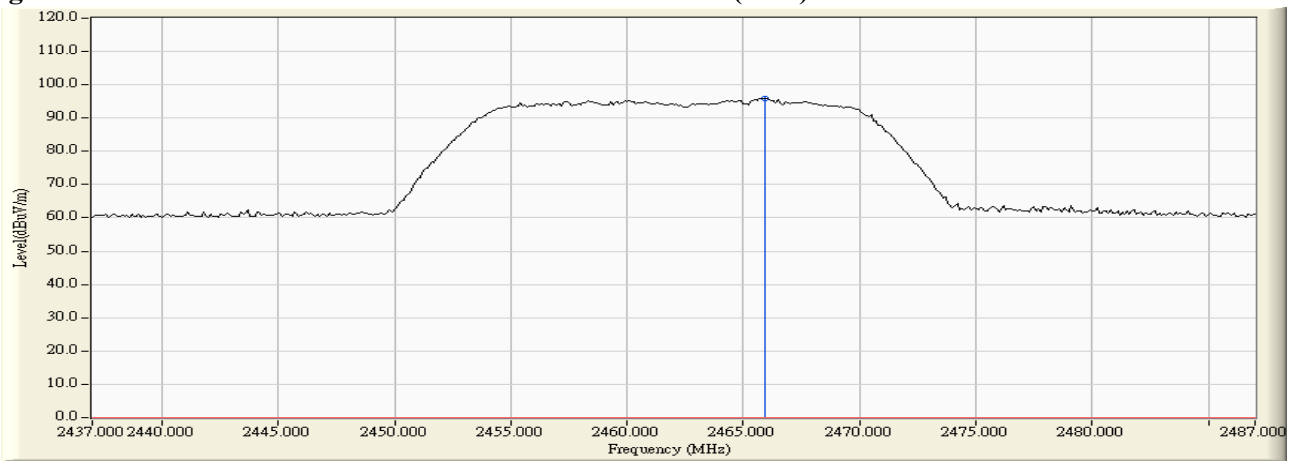
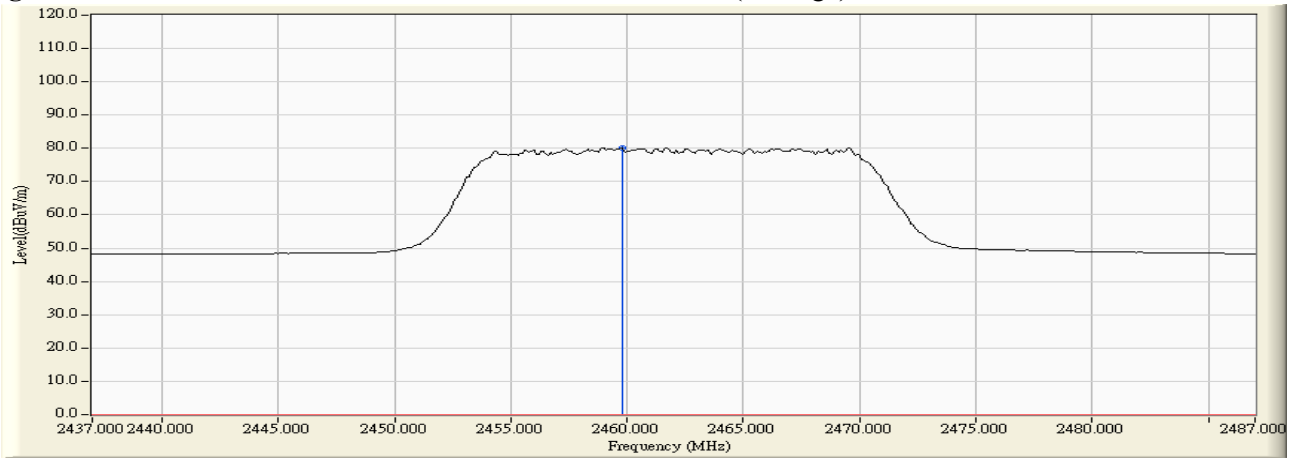


Figure Channel 11: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Digital media player module
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2465.900	36.068	73.280	109.347	--	--	--
11(Average)	2460.300	36.019	56.275	92.294	--	--	--

Figure Channel 11: Vertical (Peak)

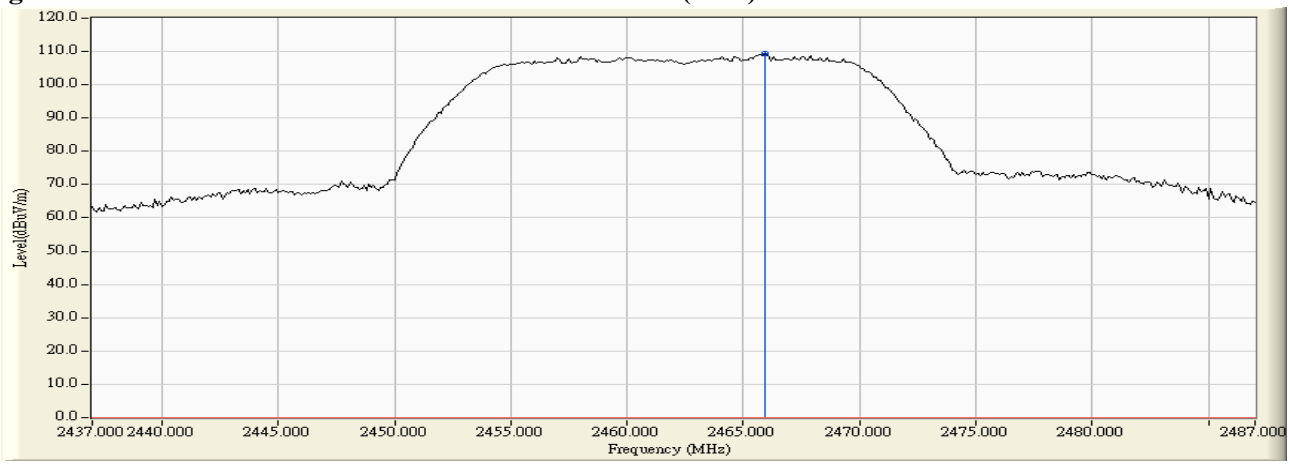
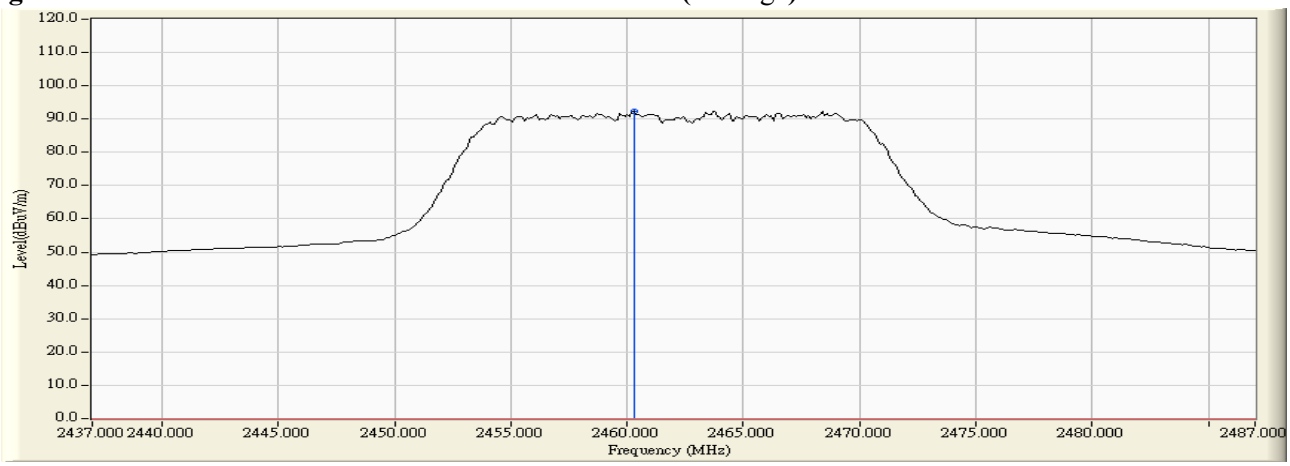


Figure Channel 11: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Marker Delta Method (Low band)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	59.219	36.703	95.921	Peak
Horizontal	2462	43.386	36.688	80.073	Average
Vertical	2462	73.280	36.068	109.347	Peak
Vertical	2462	56.275	36.019	92.294	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.5	95.921	39.03	56.891	Peak
Horizontal	2483.5	80.073	42.27	37.803	Average
Vertical	2483.5	109.347	39.03	70.317	Peak
Vertical	2483.5	92.294	42.27	50.024	Average

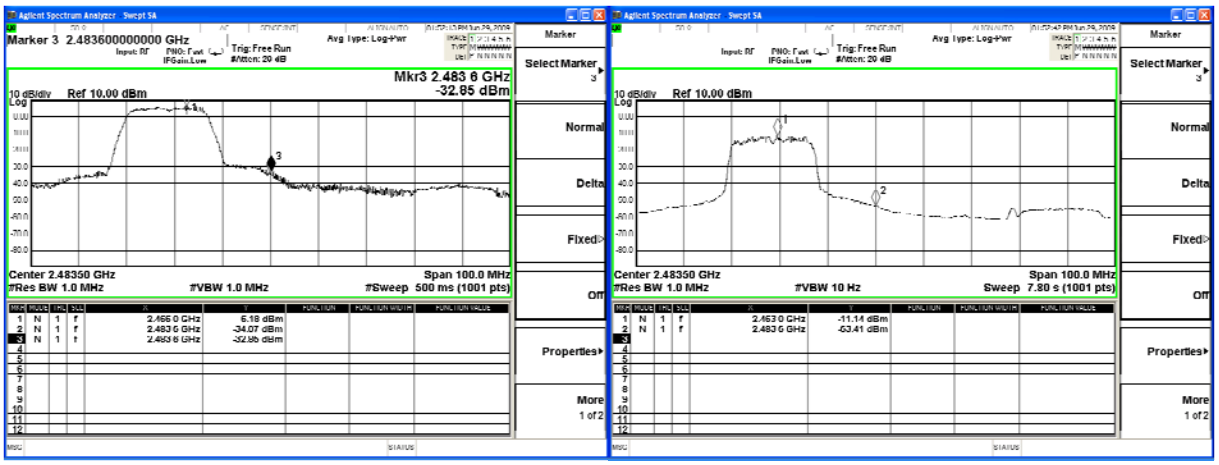
Note:

1. The Marker Delta Method is refer to FCC DA 00-705.
2. The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

   Band Edge field Strength = F - Δ

   F = Fundamental field Strength (Peak or Average)

   Δ = Conducted Band Edge Delta (Peak or Average)
3. AVG Measurement=Peak Measurement + Duty Cycle.
4. If Duty Cycle is smaller than -20dB,based on FCC part15 the duty cycle correction factor is -20dB for calculating average emission.



7. Occupied Bandwidth

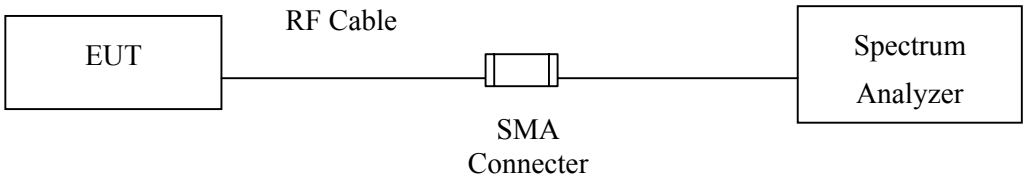
7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2008
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2009

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

7.5. Uncertainty

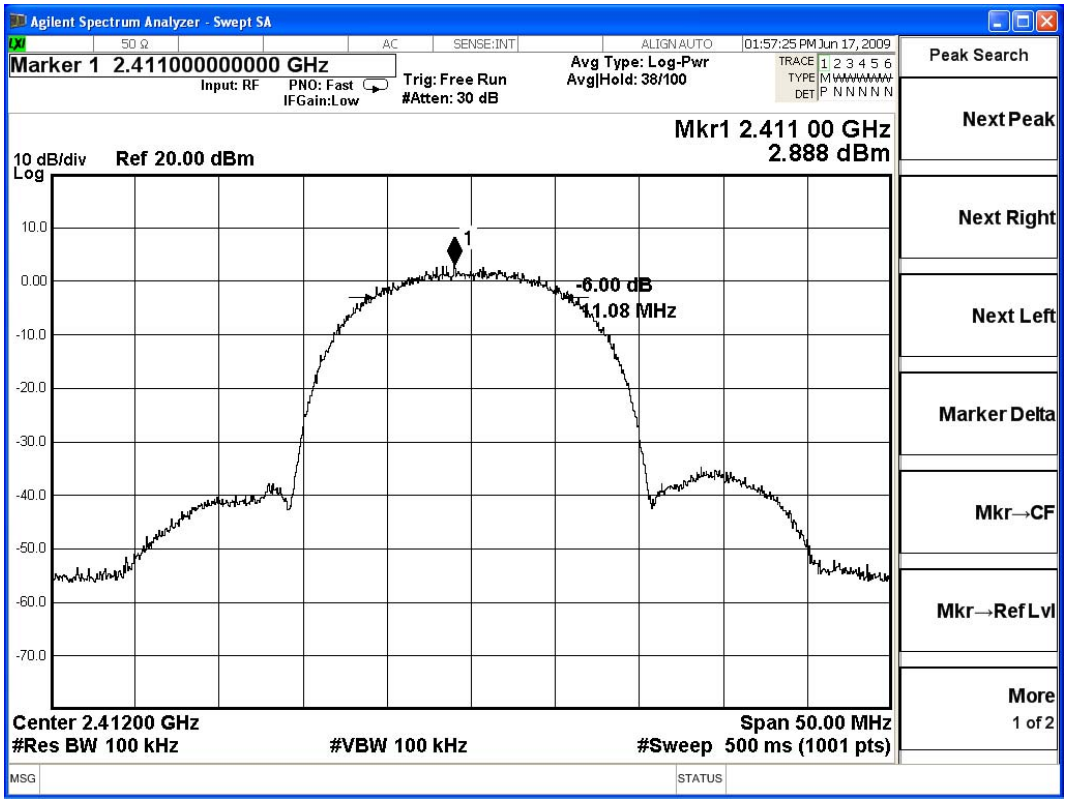
± 150Hz

7.6. Test Result of Occupied Bandwidth

Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	11080	>500	Pass

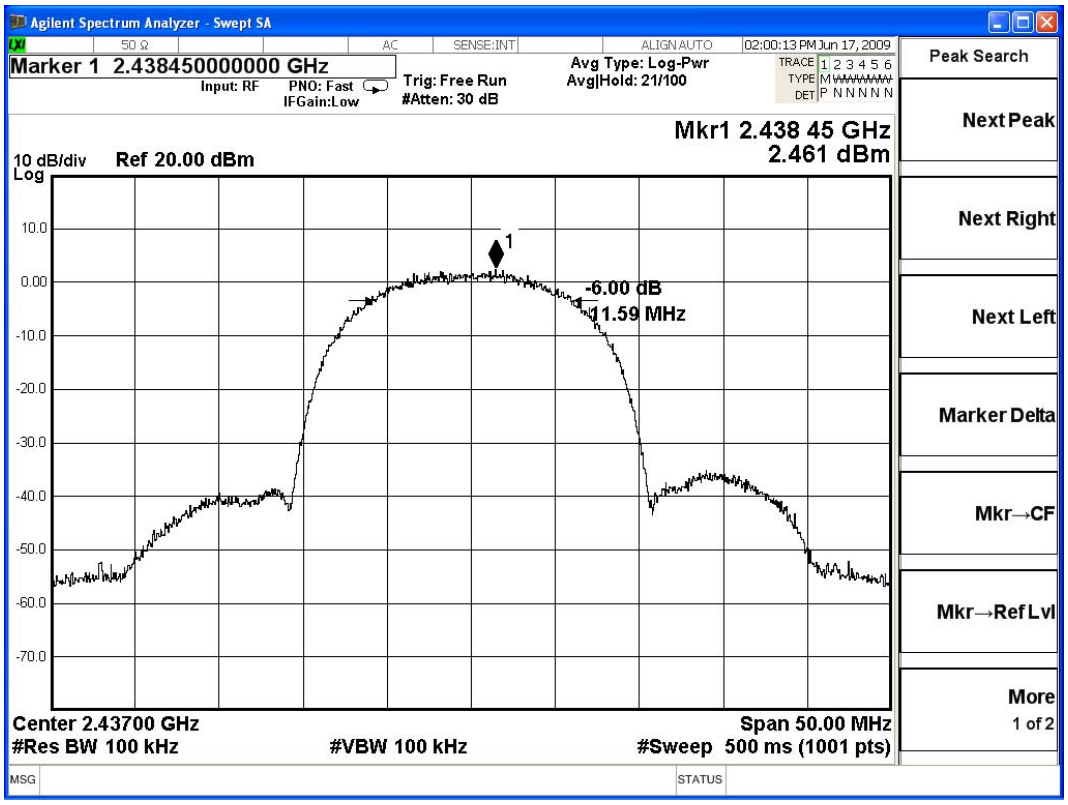
Figure Channel 1:



Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	11590	>500	Pass

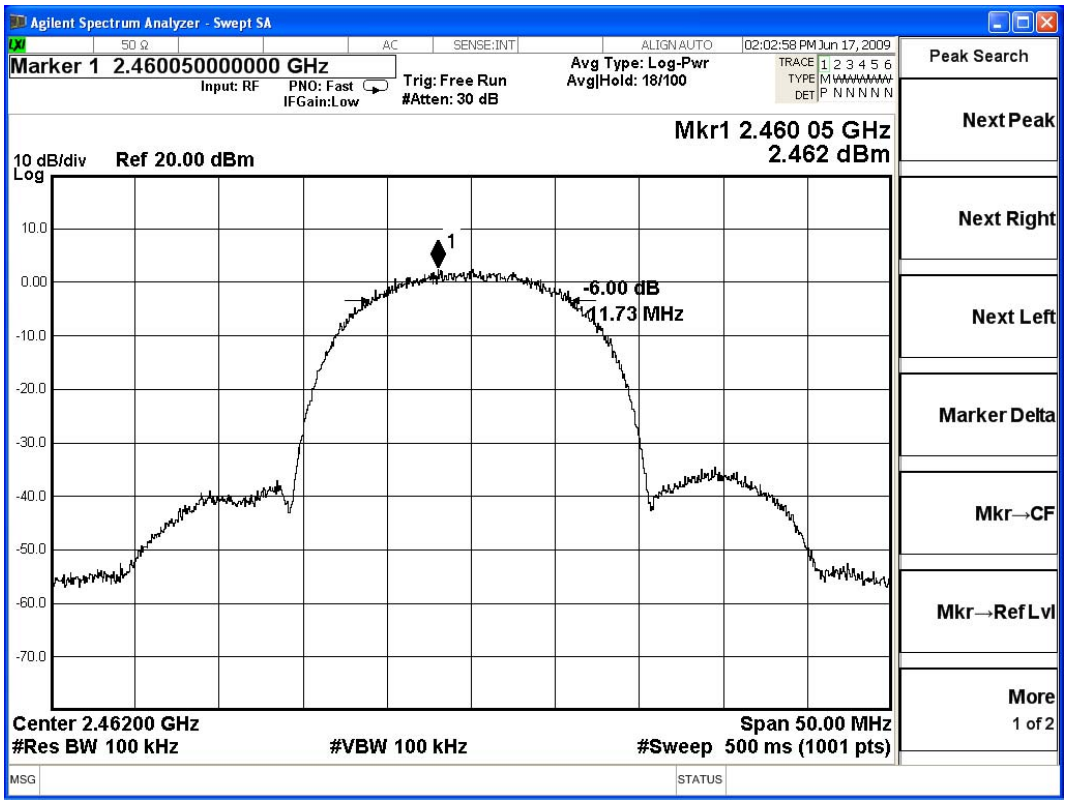
Figure Channel 6:



Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	11730	>500	Pass

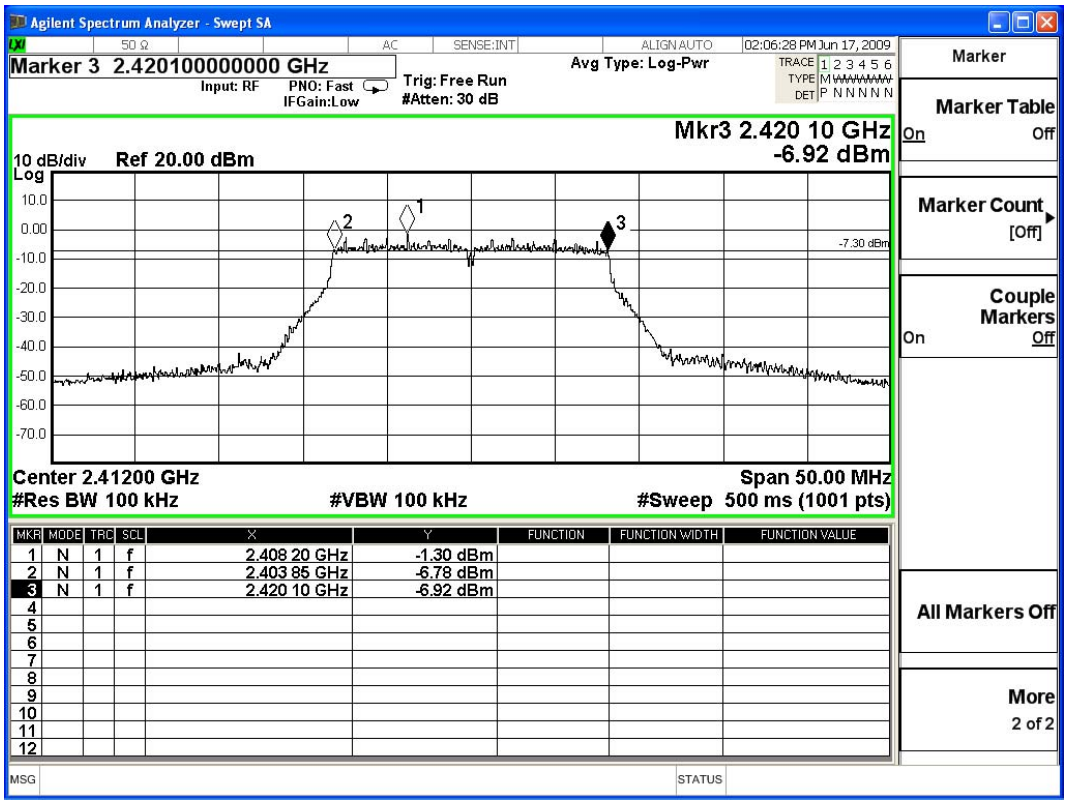
Figure Channel 11:



Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	16250	>500	Pass

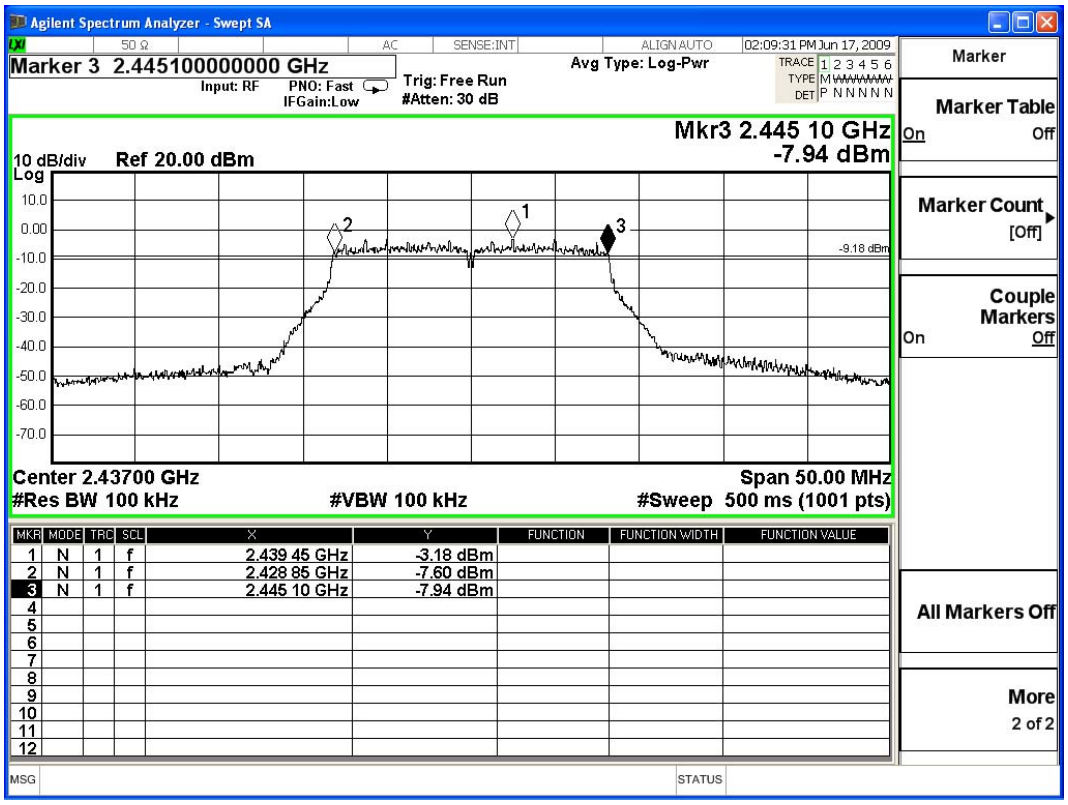
Figure Channel 1:



Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	16250	>500	Pass

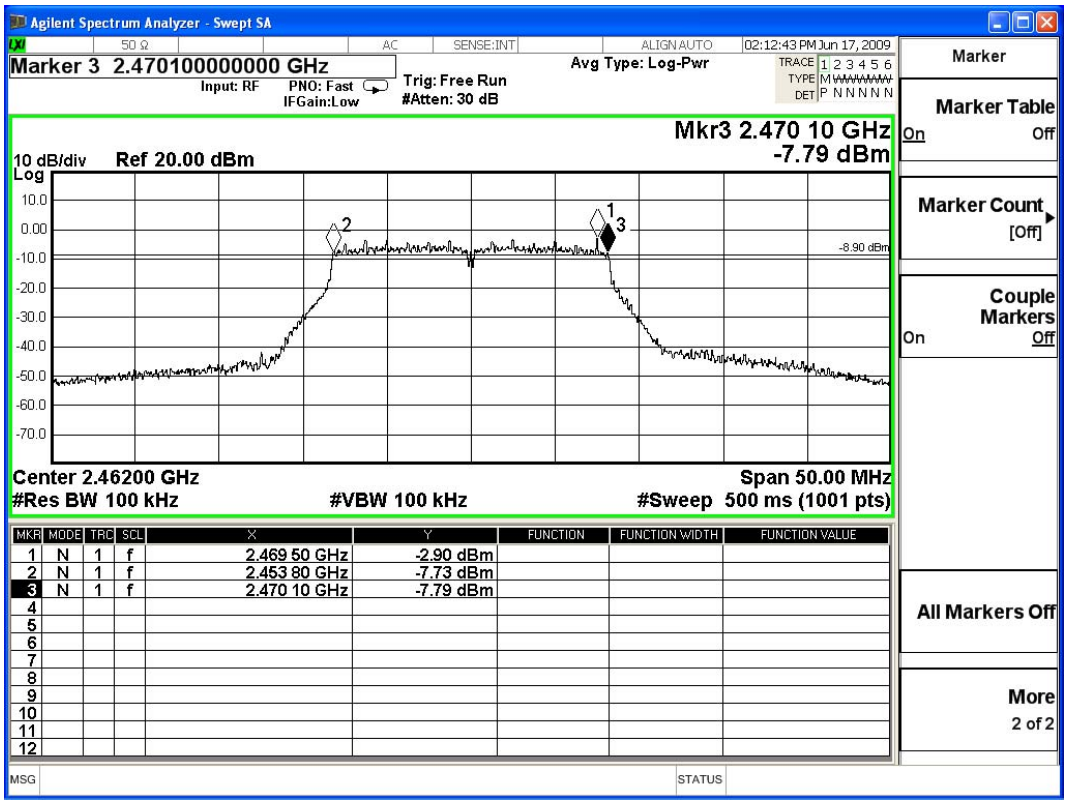
Figure Channel 6:



Product : Digital media player module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	16300	>500	Pass

Figure Channel 11:



8. Power Density

8.1. Test Equipment

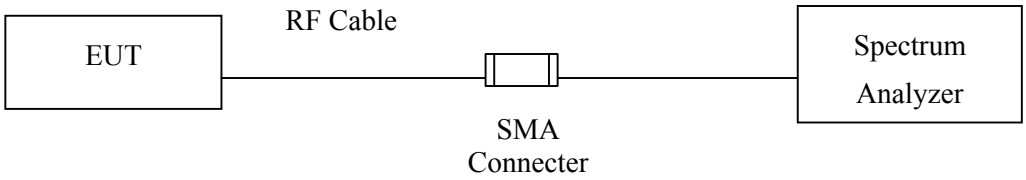
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2008
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2009

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, VBW=10KHz, Sweep time=(SPAN/3KHz), detector=Peak detector

8.5. Uncertainty

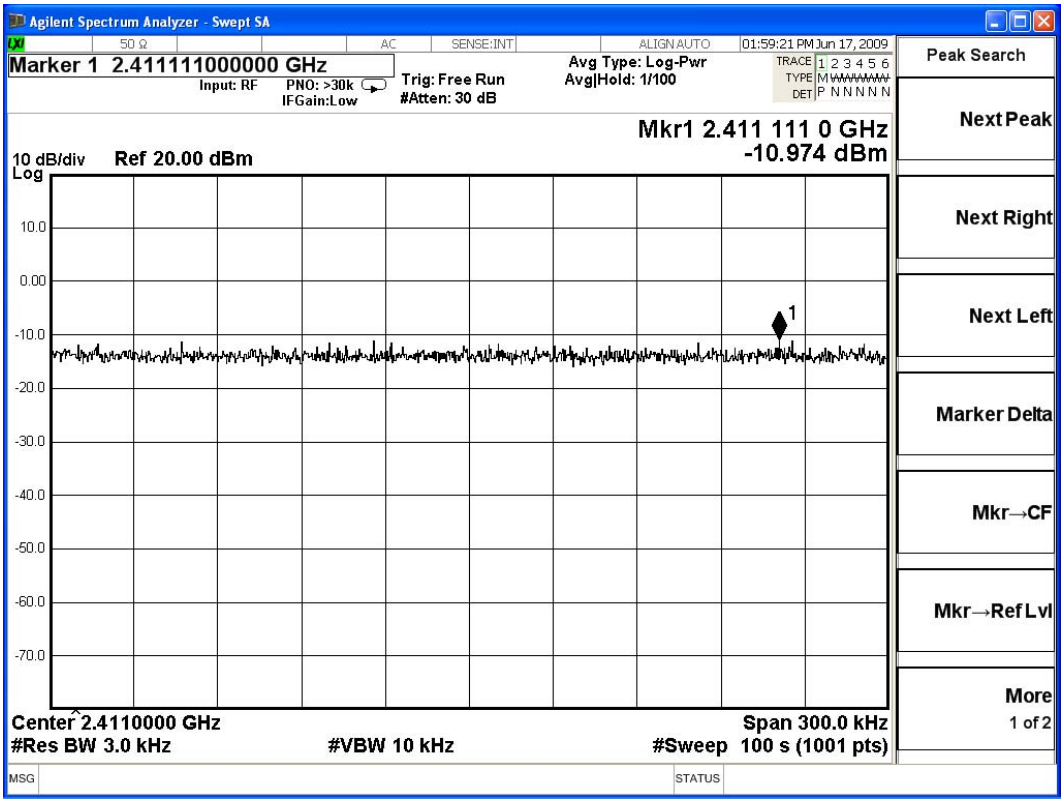
± 1.27 dB

8.6. Test Result of Power Density

Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-10.974	< 8dBm	Pass

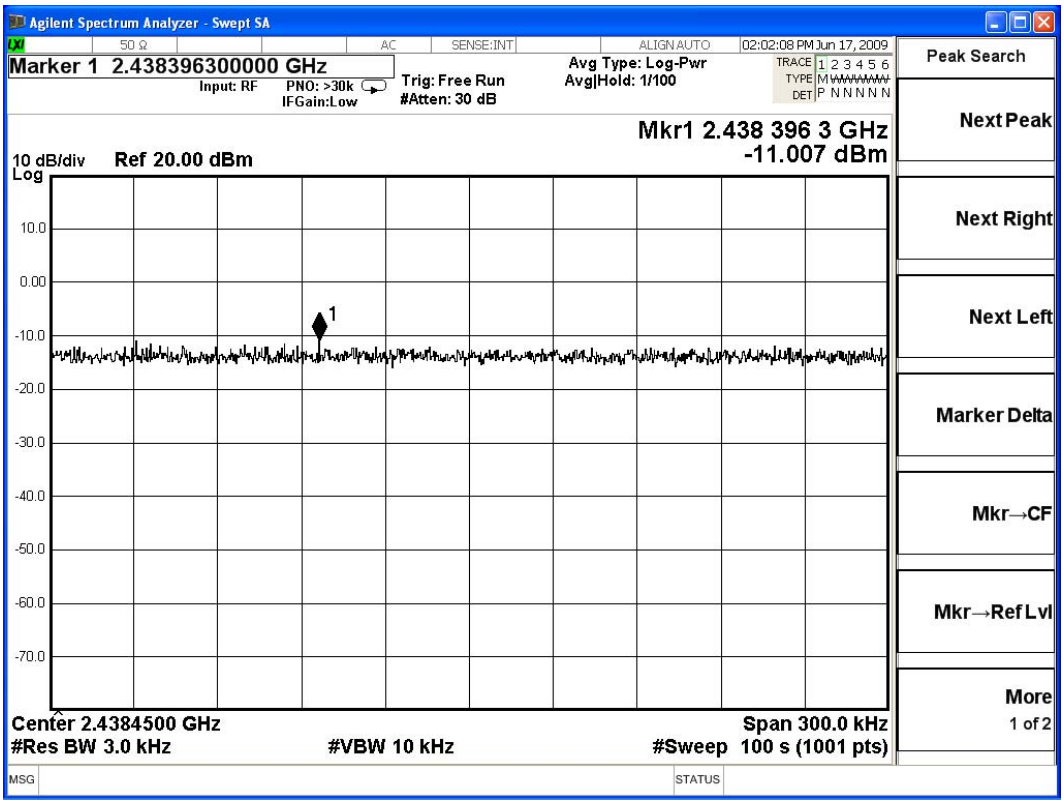
Figure Channel 1:



Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437.000	-11.007	< 8dBm	Pass

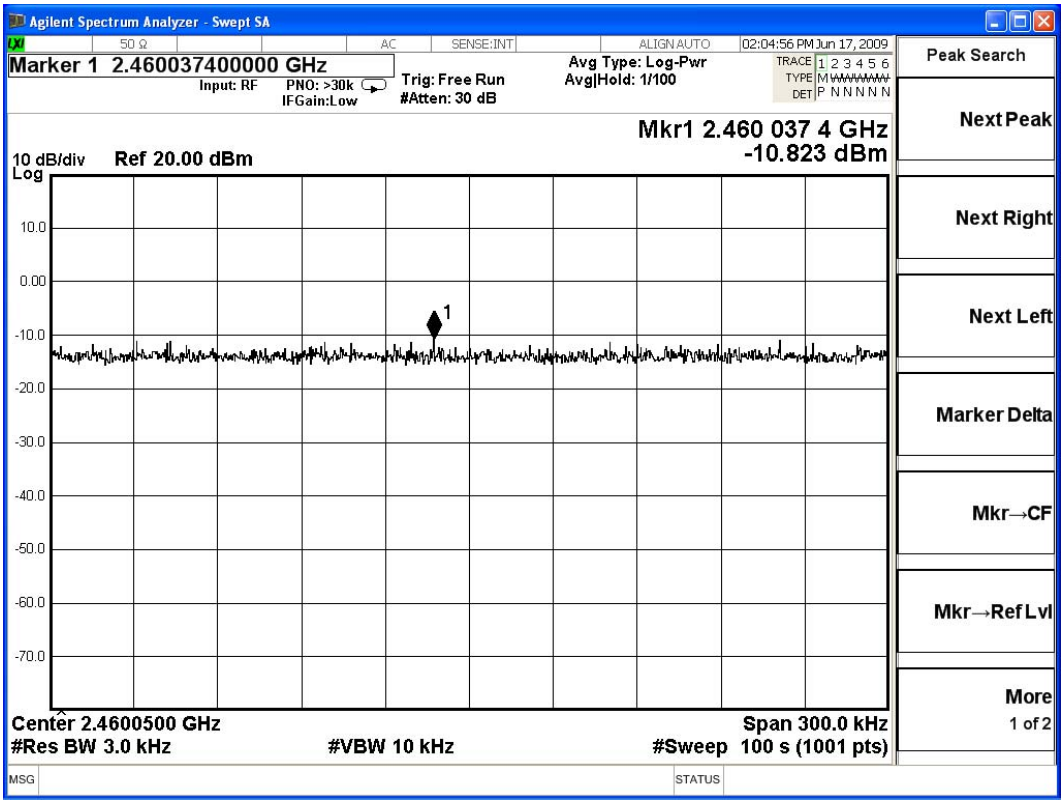
Figure Channel 6:



Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter (802.11b 11Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462.00	-10.823	< 8dBm	Pass

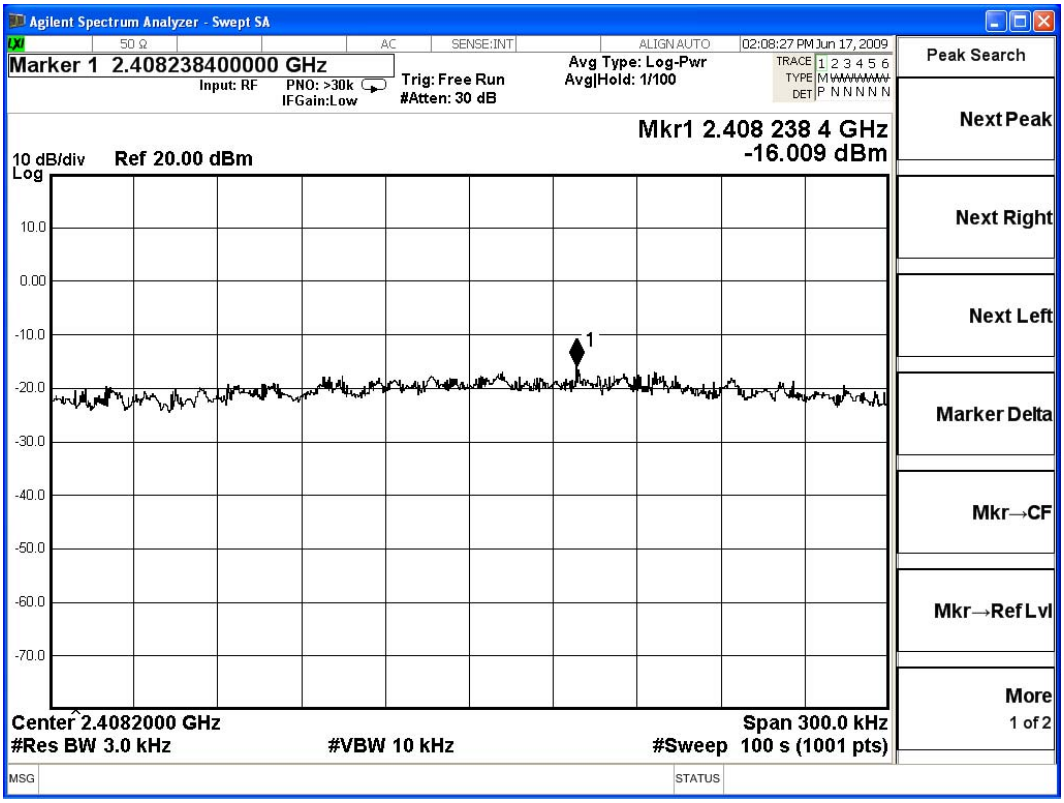
Figure Channel 11:



Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-16.009	< 8dBm	Pass

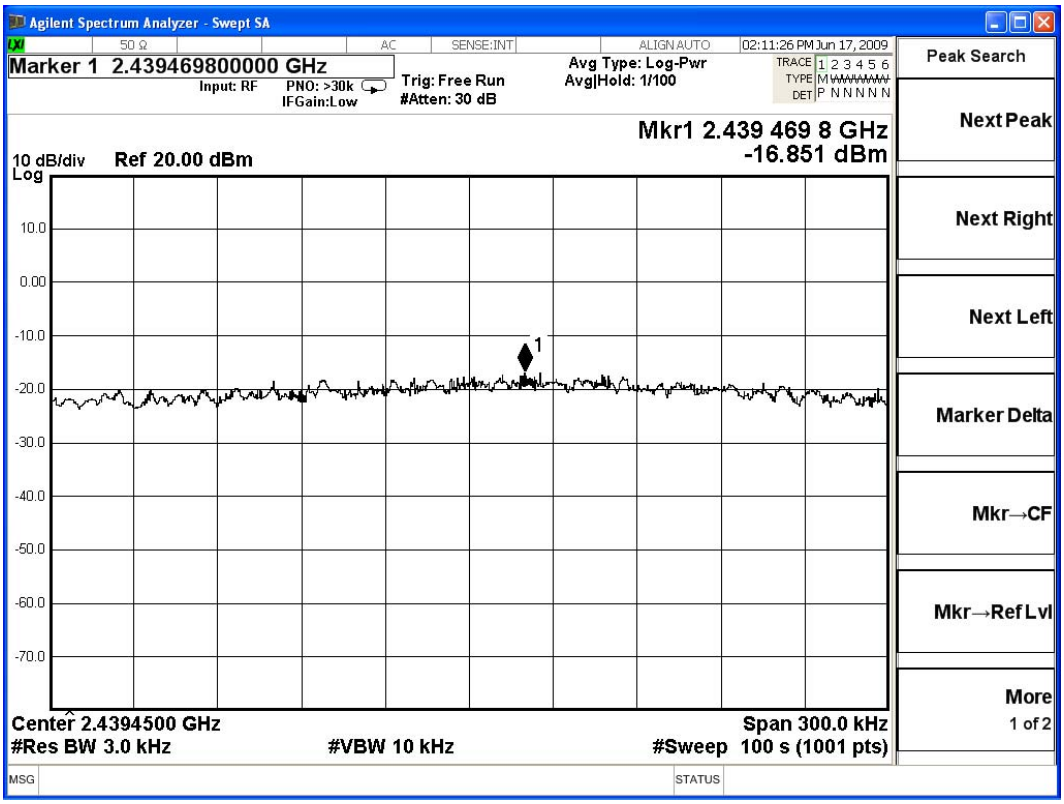
Figure Channel 1:



Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437.000	-16.851	< 8dBm	Pass

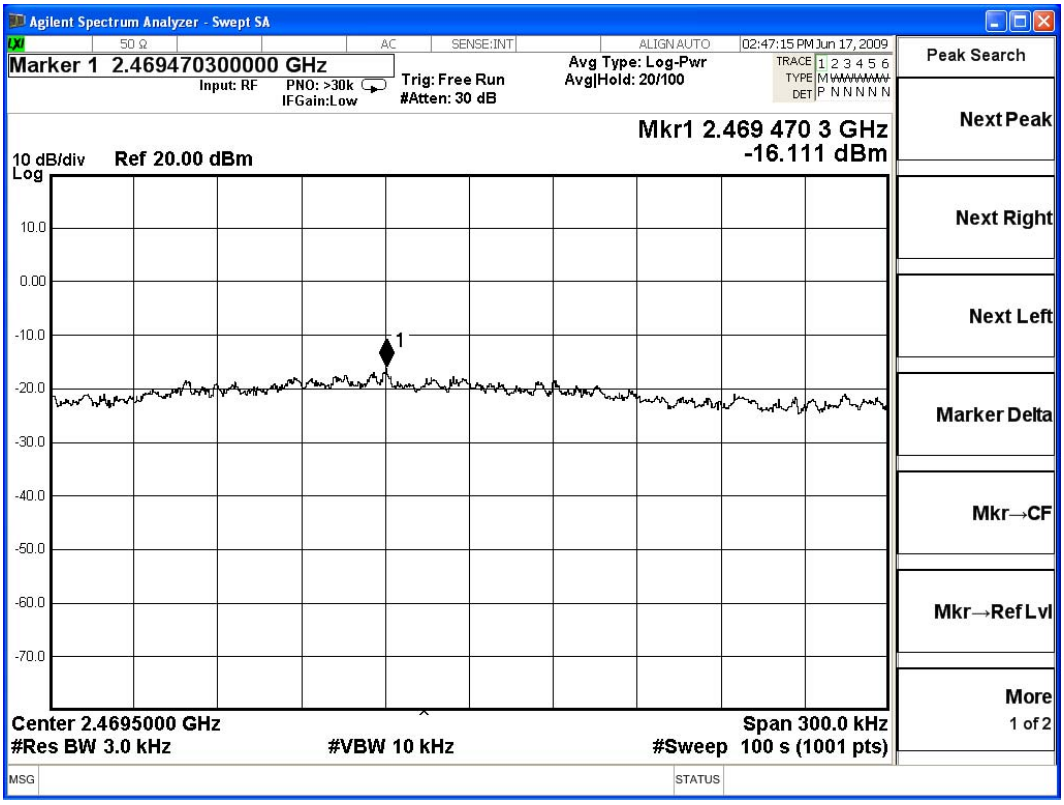
Figure Channel 6:



Product : Digital media player module
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462.00	-16.111	< 8dBm	Pass

Figure Channel 11:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.