



NVLAP LAB CODE 200707-0



FCC PART 15.247

MEASUREMENT AND TEST REPORT

For

FIYING TECHNOLOGY DEVELOPMENT CO., LTD

Rm.2312, 23/F.Metropolis tower, 10 Metroplos Drive,

Hung, Hom, Kowloon, Hong Kong

FCC ID: XJS20070901

Report Type: Original Report	Product Type: GSM&GPRS Dual Standby Mobile Phone
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Report Number: RSZ09062102-WiFi	
Report Date: 2009-07-15	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *FIYING TECHNOLOGY DEVELOPMENT CO., LTD*'s product, model number: *F8, F009, F999, D9A*(FCC ID: XJS20070901) or the "EUT" as referred to in this report is a *GSM&GPRS Dual Standby Mobile Phone*, which measures approximately: 10.3 cm L x 5.1 cm W x 1.8 cm H, rated input voltage: DC 3.7V battery.

Frequency Range:

Cellular Band: 824-849 MHz (TX), 869-894 MHz (RX)
PCS Band: 1850-1910 MHz (TX), 1930-1990 MHz (RX)
Bluetooth: 2400-2483.5 MHz (TX/RX)
WiFi: 2412-2462 MHz (TX/RX)

Modulation Mode: GMSK (GSM850/PCS1900), GFSK (Bluetooth) , Wi-Fi (DSSS/OFDM)

Transmitter Output Power:

Cellular Band: 33±2 dBm
PCS Band: 30±2 dBm
Bluetooth: -10~4 dBm
Wi-Fi: 10±2 dBm

All measurement and test data in this report was gathered from production sample serial number: 0906082(Assigned by BACL, Shenzhen). The EUT was received on 2009-06-21.

**Note: The series products, model F8, F009, F999, D9A, we select F8 to test, the difference of these models is in model name, there is no electrical change has been made to the equipment, which was explained in the attached Declaration Letter.*

Objective

This Type approval report is prepared on behalf of *FIYING TECHNOLOGY DEVELOPMENT CO., LTD* in accordance with Part 2, Subpart J, Part 15, Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This measurement and test report only pertains to the Bluetooth portion of the EUT; for measurement and test results to the GSM 1900 function please refer to report RSZ09031601-2224 issued by Shenzhen BACL.

Related Submittal(s)/Grant(s)

FCC Part 15.247, Part 22H and 24E submission with FCC ID: XJS20070901.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 21, 2007. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For 802.11b and 802.11g mode, 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

EUT was tested with Channel 1, 6 and 11.

The worst case data rate is determined with the data rate with highest output power. For 802.11b mode, 1 Mbps data rate was chosen for full testing. For 802.11g mode, 6 Mbps data rate was chosen for full testing.

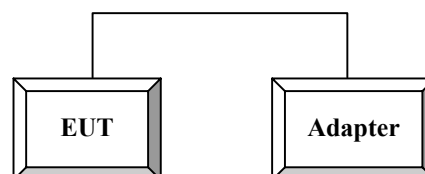
EUT Exercise Software

N/A.

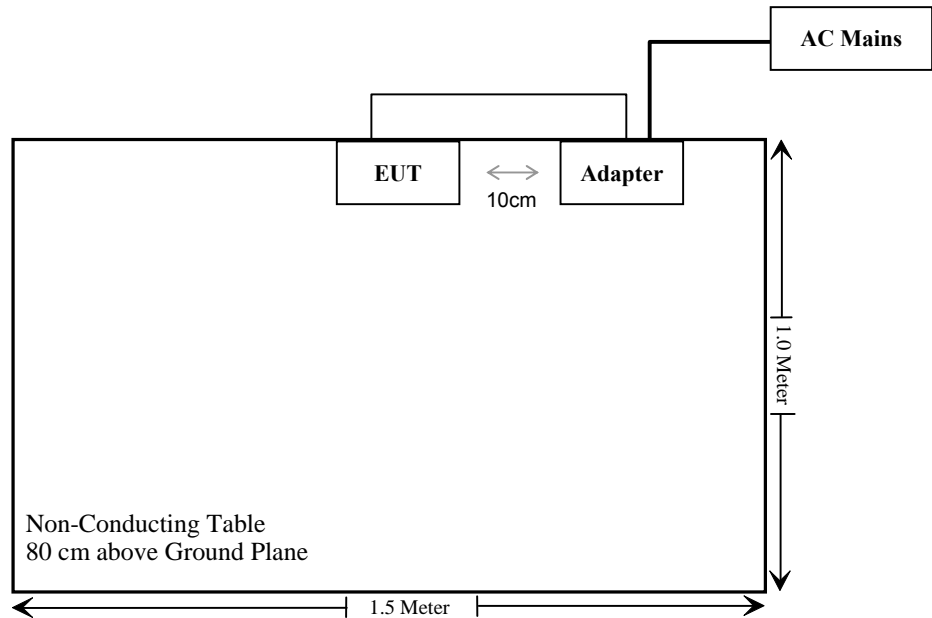
Equipment Modifications

No modification was made to the unit tested.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i) , §1.1307 (b) (1), §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	Conducted Emissions	Compliance
§15.247(d)	Spurious Emissions at Antenna Port	Compliance
§15.209, §15.205, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Bandwidth	Compliance
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

§15.247 (i) and §1.1307 (b) (1), §2.1093 – RF EXPOSURE

Standard Applicable

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Three antennas are available for the EUT, one is PCS antenna, the other is Wifi antenna and the third is Bluetooth antenna, the distance between GSM/PCS and Bluetooth is less than 2.5 cm, the distance between Wi-Fi and Bluetooth is more than 5 cm. The test procedure is base on FCC KDB 648474 D01 SAR Handsets Multi Xmitter and ant, V01r05 released on September 2008,

Result: Compliant

Please refer to the SAR report, report number: R09060513-FCC-SAR.

§15.203 - ANTENNA REQUIREMENT

Standard Applicable

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

Antenna must be permanently attached to the unit.

Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Result: Compliance.

The EUT has 3 antennas, one is for Bluetooth, the gain is -2 dBi; one is for WiFi, the gain is 0 dBi; other is for GSM850/PCS1900, the gain of PCS is 1 dBi, the gain of GSM850 is 2 dBi. All antennas are permanently attached.

§15.207 (a) - CONDUCTED EMISSIONS

Applicable Standard

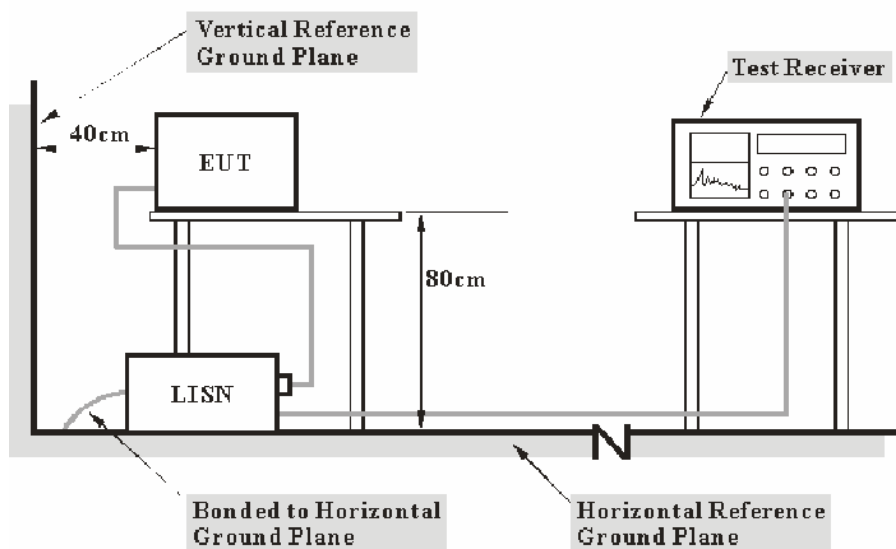
CFR47 §15.207

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is ± 2.4 dB.

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<i>Frequency Range</i>	<i>IF B/W</i>
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2009-04-28	2010-04-27
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2009-04-28	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the adapter was connected to the LISN 1, the host PC and the monitor was connected to the LISN 2.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, with the worst margin reading of:

802.11b: **10.16 dB** at **0.3950 MHz** in the **Neutral** conductor mode

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The testing was performed by Phoenix Liu on 2009-07-08.

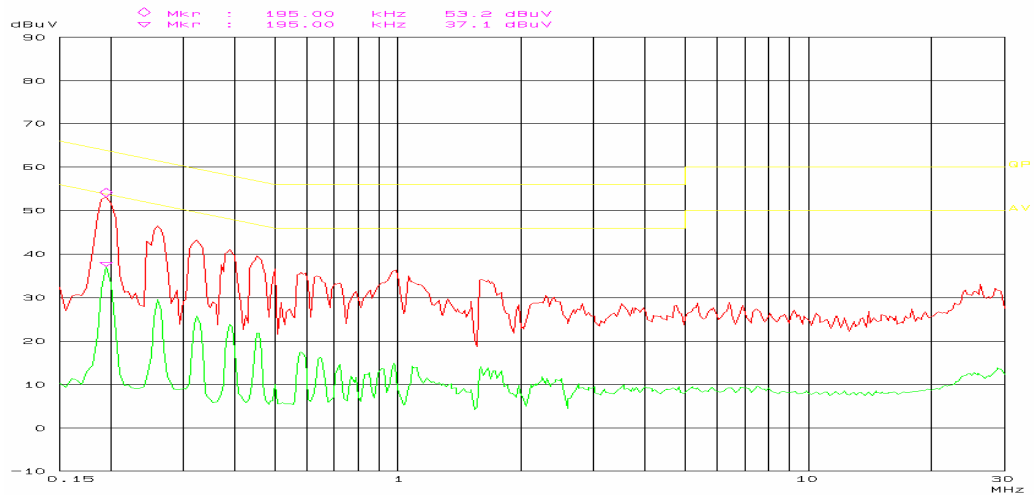
Line Conducted Emissions				FCC Part 15.207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
0.3950	37.80	AV	Neutral	47.96	10.16
0.1950	53.20	QP	Line	63.82	10.62
0.1950	52.90	QP	Neutral	63.82	10.92
0.2650	47.30	QP	Line	61.27	13.97
0.2650	46.90	QP	Neutral	61.27	14.37
0.3250	43.50	QP	Line	59.58	16.08
0.3950	41.70	QP	Line	57.96	16.26
0.1950	37.20	AV	Neutral	53.82	16.62
0.1950	37.10	AV	Line	53.82	16.72
0.3950	40.90	QP	Neutral	57.96	17.06
0.4500	39.20	QP	Line	56.88	17.68
0.4500	38.80	QP	Neutral	56.88	18.08
0.9750	37.70	QP	Line	56.00	18.30
1.1250	36.90	QP	Neutral	56.00	19.10
0.2650	29.50	AV	Neutral	51.27	21.77
0.2650	29.20	AV	Line	51.27	22.07
0.3250	26.70	AV	Line	49.58	22.88
0.4500	23.70	AV	Neutral	46.88	23.18
0.3950	24.30	AV	Line	47.96	23.66
28.1250	35.70	QP	Neutral	60.00	24.30
0.4500	22.30	AV	Line	46.88	24.58
1.1250	18.70	AV	Neutral	46.00	27.30
0.9750	14.90	AV	Line	46.00	31.10
28.1250	14.30	AV	Neutral	50.00	35.70

Plot(s) of Test Data

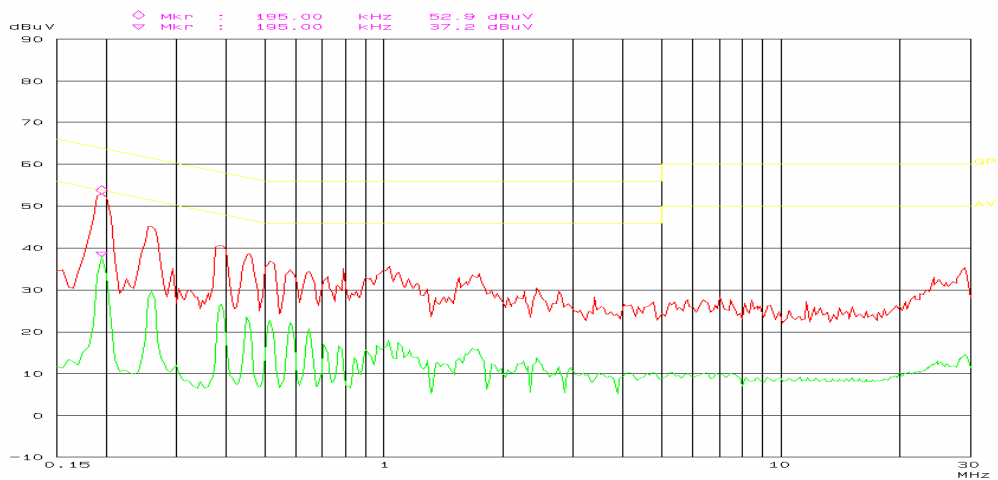
Plot(s) of Test Data is presented hereinafter as reference.

Conducted Emission
FCC Part15

EUT: GSM&GPRS Dual Standby Mobile Phone
Manuf: FIYING
Op Cond: Operating&charging
Operator: Phoenix
Test Spec: AC 120/60Hz L
Comment: Temp: 25 Hum: 56%
BACL

Conducted Emission
FCC Part15

EUT: GSM&GPRS Dual Standby Mobile Phone
Manuf: FIYING
Op Cond: Operating&charging
Operator: Phoenix
Test Spec: AC 120/60Hz N
Comment: Temp: 25 Hum: 56%
BACL



§15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

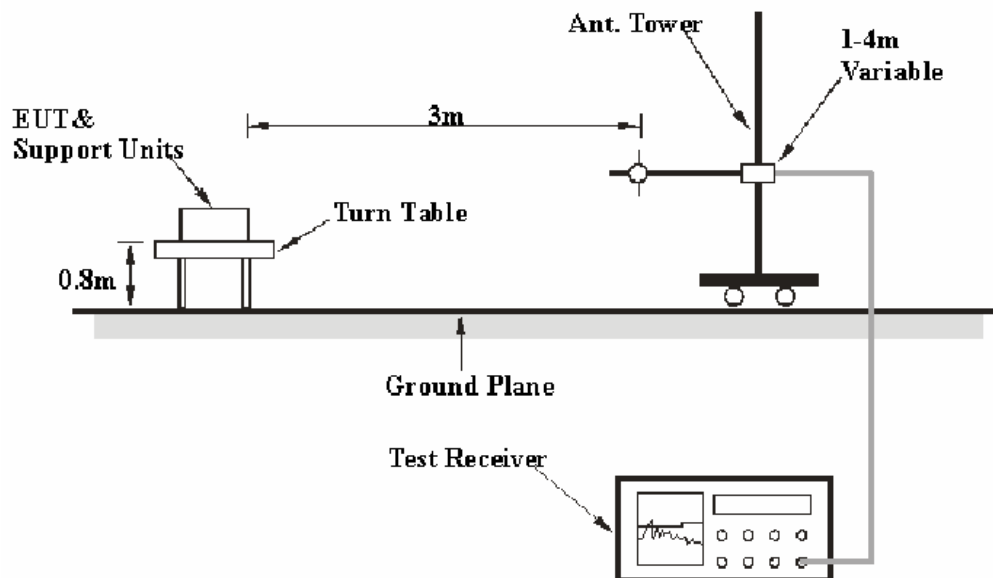
FCC §15.247 (d); §15.209; §15.205;

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 4.0 dB.

EUT Setup



The radiated emission tests were performed in the 3 meters chamber B test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC Part 15.209 15.205 and 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>
30MHz – 1000 MHz	100 kHz	300 kHz
1000 MHz – 25 GHz	1 MHz	3 MHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2008-11-15	2009-11-15
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2008-11-07	2009-11-06
Sunol Sciences	Bilog Antenna	JB1	A040904-2	2009-03-11	2010-03-11
HP	Amplifier	8449B	3008A00277	2008-09-29	2009-09-29
Sunol Sciences	Horn Antenna	DRH-118	A052604	2008-09-25	2009-09-25
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-08-28	2009-08-27
Agilent	Spectrum Analyzer	E4440A	MY44303352	2009-04-27	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

For the radiated emissions test, the adapter, the host PC and monitor were connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz and peak and Average detection modes for frequencies above 1GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.209, 15.205, and 15.247, with the worst margin reading of:

30 -1000 MHz:

802.11b: 18.2 dB at 33.218700 MHz in the Vertical polarization
802.11g: 13.5 dB at 33.383325 MHz in the Vertical polarization

Above 1 GHz:

8.72 dB at 7236.00 MHz in the Horizontal polarization, 802.11b Low Channel
9.85 dB at 4874.00 MHz in the Horizontal polarization, 802.11b Middle Channel
6.23 dB at 7386.00 MHz in the Horizontal polarization, 802.11b High Channel

9.13 dB at 7236.00 MHz in the Horizontal polarization, 802.11g Low Channel
9.87 dB at 4874.00 MHz in the Horizontal polarization, 802.11g Middle Channel
6.91 dB at 7386.00 MHz in the Horizontal polarization, 802.11g High Channel

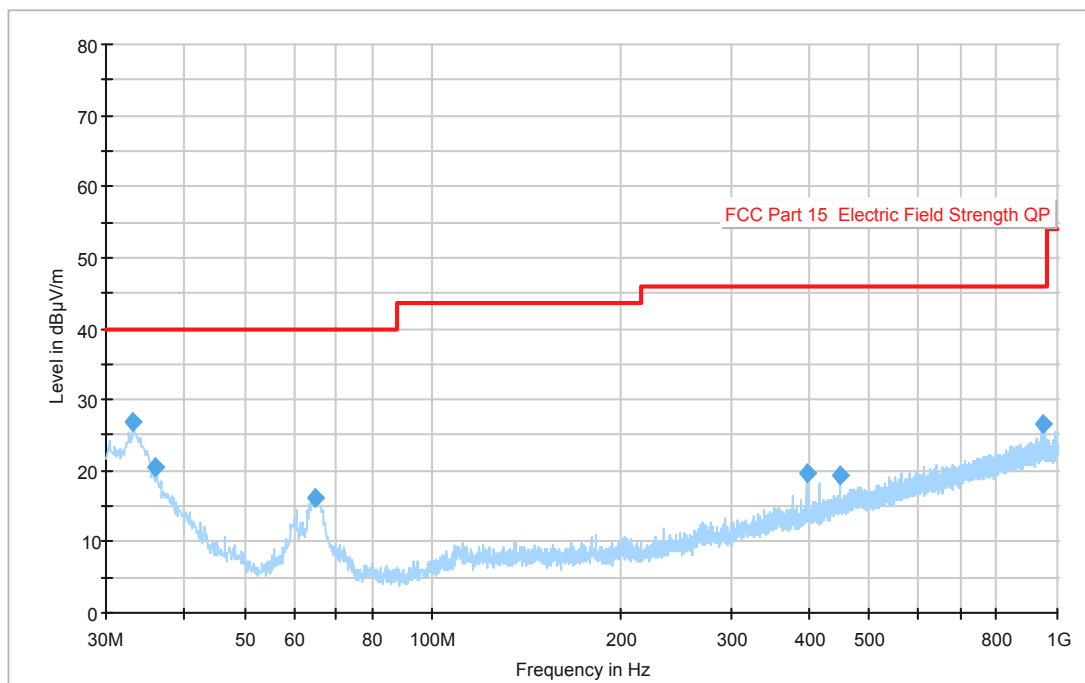
Test Data**Environmental Conditions**

Temperature:	24 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Phoenix Liu on 2009-07-01 and Victor Zhang on 2009-07-15

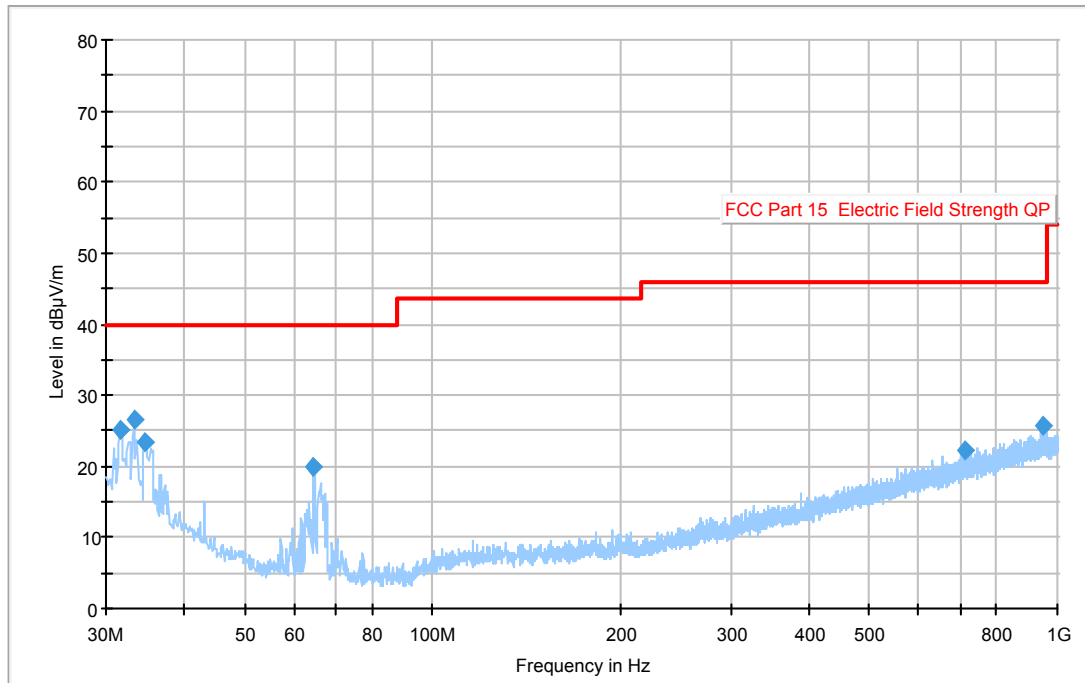
30-1000 MHz:

Test Mode: Transmitting (802.11b)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
33.218700	26.8	110.0	V	0.0	-10.8	40.0	18.2
64.921000	16.2	102.0	V	60.0	-4.3	40.0	19.4
951.954975	26.5	111.0	V	76.0	-3.0	46.0	19.5
36.097200	20.6	109.0	V	38.0	-12.7	40.0	22.6
396.496250	19.6	160.0	V	80.0	-5.1	46.0	26.4
448.312500	19.4	155.0	V	60.0	-4.6	46.0	26.6

Test Mode: Transmitting (802.11g)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
33.383325	26.5	264.0	V	0.0	-10.9	40.0	13.5
31.576250	25.1	256.0	V	250.0	-4.2	40.0	14.9
34.728750	23.4	230.0	V	220.0	-5.8	40.0	16.6
64.423150	19.8	225.0	V	180.0	-6.3	40.0	20.2
950.613675	25.6	328.0	H	289.0	-3.0	46.0	20.4
710.455000	22.1	210.0	V	185.0	-5.4	46.0	23.9

Above 1 GHz:

Test mode: Transmitting (802.11b):

Indicated		Detector (PK/AV)	Table Angle Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/15.209		
Frenquency (MHz)	S.A. Reading (dBμV/m)			Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2412 MHz)												
7236.00	30.56	AV	10	1.2	H	39.2	9.12	33.6	45.28	54	8.72	harmonic
7236.00	30.12	AV	10	1.2	V	38.0	9.12	33.6	43.64	54	10.36	harmonic
4824.00	31.25	AV	0	1.2	H	36.3	7.56	33.7	41.41	54	12.59	harmonic
4301.11	31.75	AV	30	1.2	H	35.1	7.13	33.7	40.28	54	13.72	spurious
7236.00	44.74	PK	0	1.2	H	39.2	9.12	33.6	59.46	74	14.54	harmonic
4824.00	30.04	AV	90	1.2	V	35.0	7.56	33.7	38.90	54	15.10	harmonic
4301.11	30.21	AV	30	1.2	V	34.0	7.13	33.7	37.64	54	16.36	spurious
7236.00	43.14	PK	0	1.2	V	38.0	9.12	33.6	56.66	74	17.34	harmonic
4824.00	45.39	PK	0	1.2	H	36.3	7.56	33.7	55.55	74	18.45	harmonic
4301.11	45.50	PK	45	1.2	H	35.1	7.13	33.7	54.03	74	19.97	spurious
4824.00	43.49	PK	90	1.2	V	35.0	7.56	33.7	52.35	74	21.65	harmonic
4301.11	43.05	PK	45	1.2	V	34.0	7.13	33.7	50.48	74	23.52	spurious
Middle Channel (2437 MHz)												
4874.00	32.69	AV	175	1.0	H	36.3	8.86	33.7	44.15	54	9.85	harmonic
7311.00	31.84	AV	15	1.1	H	39.2	5.11	33.6	42.55	54	11.45	harmonic
4874.00	32.31	AV	185	1.1	V	35.0	8.86	33.7	42.47	54	11.53	harmonic
7311.00	31.20	AV	10	1.0	V	38.0	5.11	33.6	40.71	54	13.29	harmonic
4874.00	47.10	PK	180	1.2	H	36.3	8.86	33.7	58.56	74	15.44	harmonic
4874.00	45.94	PK	180	1.2	V	35.0	8.86	33.7	56.10	74	17.90	harmonic
7311.00	44.53	PK	0	1.0	H	39.2	5.11	33.6	55.24	74	18.76	harmonic
7311.00	43.63	PK	0	1.2	V	38.0	5.11	33.6	53.14	74	20.86	harmonic
1266.87	34.98	AV	30	1.2	V	24.8	2.77	34.8	27.75	54	26.25	spurious
1266.87	33.77	AV	30	1.0	H	25.9	2.77	34.8	27.64	54	26.36	spurious
1266.87	48.47	PK	45	1.2	H	25.9	2.77	34.8	42.34	74	31.66	spurious
1266.87	47.72	PK	45	1.2	V	24.8	2.77	34.8	40.49	74	33.51	spurious
High Channel (2462 MHz)												
7386.00	33.05	AV	0	1.1	H	39.2	9.12	33.6	47.77	54	6.23	harmonic
7386.00	31.76	AV	15	1.1	V	38.0	9.12	33.6	45.28	54	8.72	harmonic
4924.00	32.39	AV	0	1.1	H	36.3	7.56	33.7	42.55	54	11.45	harmonic
7386.00	47.23	PK	10	1.1	H	39.2	9.12	33.6	61.95	74	12.05	harmonic
4924.00	32.31	AV	20	1.1	V	35.0	7.56	33.7	41.17	54	12.83	harmonic
7386.00	45.38	PK	10	1.2	V	38.0	9.12	33.6	58.90	74	15.10	harmonic
4924.00	45.71	PK	20	1.2	H	36.3	7.56	33.7	55.87	74	18.13	harmonic
4924.00	44.96	PK	0	1.2	V	35.0	7.56	33.7	53.82	74	20.18	harmonic
1012.56	35.20	AV	20	1.1	H	25.1	4.78	35	30.08	54	23.92	spurious
1012.56	35.43	AV	0	1.1	V	23.8	4.78	35	29.01	54	24.99	spurious
1012.56	48.75	PK	30	1.2	H	25.1	4.78	35	43.63	74	30.37	spurious
1012.56	47.57	PK	20	1.2	V	23.8	4.78	35	41.15	74	32.85	spurious

Test mode: Transmitting (802.11g):

Indicated		Detector (PK/AV)	Table Angle Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/15.209		
Frenquency (MHz)	S.A. Reading (dBμV/m)			Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2412 MHz)												
7236.00	30.15	AV	10	1.2	H	39.2	9.12	33.6	44.87	54	9.13	harmonic
7236.00	29.80	AV	10	1.2	V	38.0	9.12	33.6	43.32	54	10.68	harmonic
4824.00	30.23	AV	0	1.2	H	36.3	7.56	33.7	40.39	54	13.61	harmonic
7236.00	44.53	PK	0	1.2	H	39.2	9.12	33.6	59.25	74	14.75	harmonic
4824.00	29.86	AV	90	1.2	V	35.0	7.56	33.7	38.72	54	15.28	harmonic
7236.00	43.79	PK	0	1.2	V	38.0	9.12	33.6	57.31	74	16.69	harmonic
4824.00	44.37	PK	0	1.2	H	36.3	7.56	33.7	54.53	74	19.47	harmonic
4824.00	43.90	PK	90	1.2	V	35.0	7.56	33.7	52.76	74	21.24	harmonic
1540.13	33.15	AV	30	1.2	H	27.8	5.62	34.4	32.17	54	21.83	spurious
1540.13	32.75	AV	30	1.2	V	27.5	5.62	34.4	31.47	54	22.53	spurious
1540.13	47.29	PK	45	1.2	H	27.8	5.62	34.4	46.31	74	27.69	spurious
1540.13	46.32	PK	45	1.2	V	27.5	5.62	34.4	45.04	74	28.96	spurious
Middle Channel (2437 MHz)												
4874.00	32.67	AV	175	1.0	H	36.3	8.86	33.7	44.13	54	9.87	harmonic
4874.00	32.50	AV	185	1.1	V	35.0	8.86	33.7	42.66	54	11.34	harmonic
7311.00	31.70	AV	15	1.1	H	39.2	5.11	33.6	42.41	54	11.59	harmonic
7311.00	31.02	AV	10	1.0	V	38.0	5.11	33.6	40.53	54	13.47	harmonic
4874.00	47.10	PK	180	1.2	H	36.3	8.86	33.7	58.56	74	15.44	harmonic
4874.00	46.27	PK	180	1.2	V	35.0	8.86	33.7	56.43	74	17.57	harmonic
7311.00	44.53	PK	0	1.0	H	39.2	5.11	33.6	55.24	74	18.76	harmonic
7311.00	43.82	PK	0	1.2	V	38.0	5.11	33.6	53.33	74	20.67	harmonic
1272.67	34.10	AV	30	1.0	H	25.9	2.77	34.8	27.97	54	26.03	spurious
1272.67	34.80	AV	30	1.2	V	24.8	2.77	34.8	27.57	54	26.43	spurious
1272.67	48.33	PK	45	1.2	H	25.9	2.77	34.8	42.20	74	31.80	spurious
1272.67	47.54	PK	45	1.2	V	24.8	2.77	34.8	40.31	74	33.69	spurious
High Channel (2462 MHz)												
7386.00	32.37	AV	0	1.1	H	39.2	9.12	33.6	47.09	54	6.91	harmonic
4924.00	33.96	AV	0	1.1	H	36.3	7.56	33.7	44.12	54	9.88	harmonic
7386.00	30.56	AV	15	1.1	V	38.0	9.12	33.6	44.08	54	9.92	harmonic
4924.00	32.32	AV	20	1.1	V	35.0	7.56	33.7	41.18	54	12.82	harmonic
7386.00	44.47	PK	10	1.1	H	39.2	9.12	33.6	59.19	74	14.81	harmonic
7386.00	43.96	PK	10	1.2	V	38.0	9.12	33.6	57.48	74	16.52	harmonic
4924.00	46.69	PK	20	1.2	H	36.3	7.56	33.7	56.85	74	17.15	harmonic
4924.00	45.89	PK	0	1.2	V	35.0	7.56	33.7	54.75	74	19.25	harmonic
1065.62	35.64	AV	20	1.1	H	25.1	4.78	35	30.52	54	23.48	spurious
1065.62	34.06	AV	0	1.1	V	23.8	4.78	35	27.64	54	26.36	spurious
1065.62	48.50	PK	30	1.2	H	25.1	4.78	35	43.38	74	30.62	spurious
1065.62	47.66	PK	20	1.2	V	23.8	4.78	35	41.24	74	32.76	spurious

Out of Band Emission

802.11b mode:

Indicated		Detector (PK/AV)	Table Angle Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/15.209		
Frenquency (MHz)	S.A. Reading (dBμV/m)			Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Comment
2387.080	33.76	AV	0	1.0	V	33.9	7.9	30.3	45.26	54	8.74	spurious
2487.460	33.82	AV	20	1.0	H	33.9	7.9	30.9	44.72	54	9.28	spurious
2487.460	32.64	AV	0	1.0	V	33.9	7.9	30.3	44.14	54	9.86	spurious
2387.080	32.22	AV	30	1.0	H	33.9	7.9	30.9	43.12	54	10.88	spurious
2387.080	47.64	PK	30	1.2	V	33.9	7.9	30.3	59.14	74	14.86	spurious
2487.460	47.49	PK	10	1.0	H	33.9	7.9	30.9	58.39	74	15.61	spurious
2487.460	46.20	PK	0	1.2	V	33.9	7.9	30.3	57.7	74	16.30	spurious
2387.080	45.55	PK	20	1.2	H	33.9	7.9	30.9	56.45	74	17.55	spurious

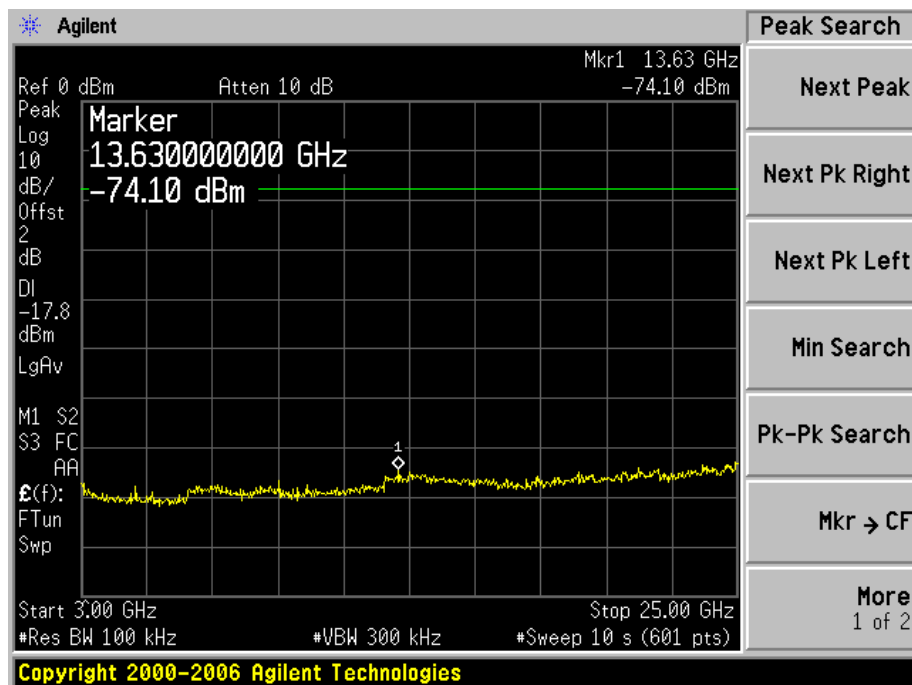
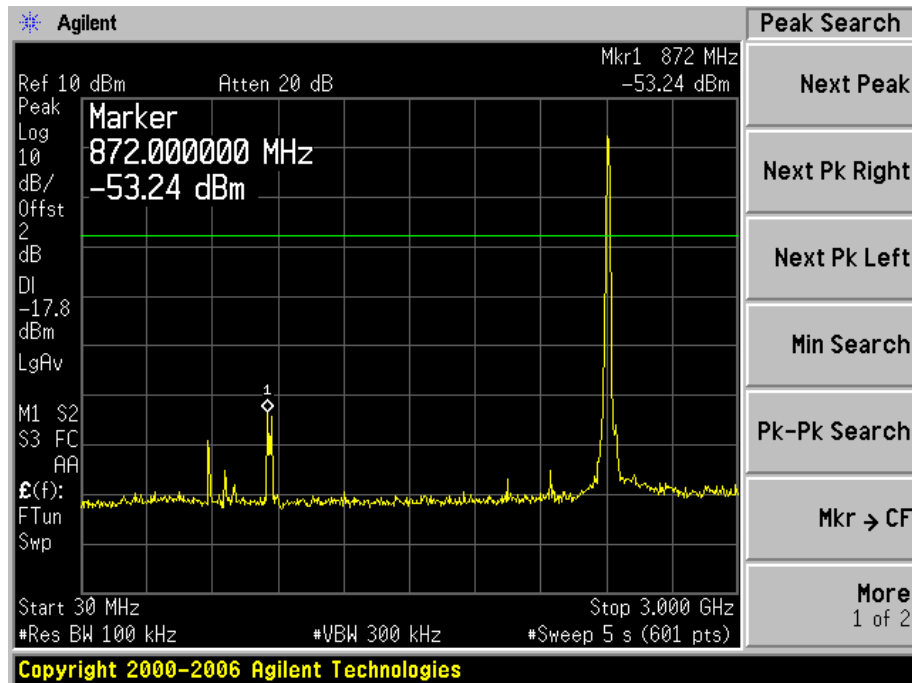
802.11g mode:

Indicated		Detector (PK/AV)	Table Angle Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/15.209		
Frenquency (MHz)	S.A. Reading (dBμV/m)			Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Comment
2389.640	32.80	AV	0	1.0	V	33.9	7.9	30.3	44.30	54	9.70	spurious
2484.670	32.86	AV	20	1.0	H	33.9	7.9	30.9	43.76	54	10.24	spurious
2484.670	31.68	AV	0	1.0	V	33.9	7.9	30.3	43.18	54	10.82	spurious
2389.640	31.26	AV	30	1.0	H	33.9	7.9	30.9	42.16	54	11.84	spurious
2389.640	46.68	PK	30	1.2	V	33.9	7.9	30.3	58.18	74	15.82	spurious
2484.670	46.53	PK	10	1.0	H	33.9	7.9	30.9	57.43	74	16.57	spurious
2484.670	45.24	PK	0	1.2	V	33.9	7.9	30.3	56.74	74	17.26	spurious
2389.640	44.59	PK	20	1.2	H	33.9	7.9	30.9	55.49	74	18.51	spurious

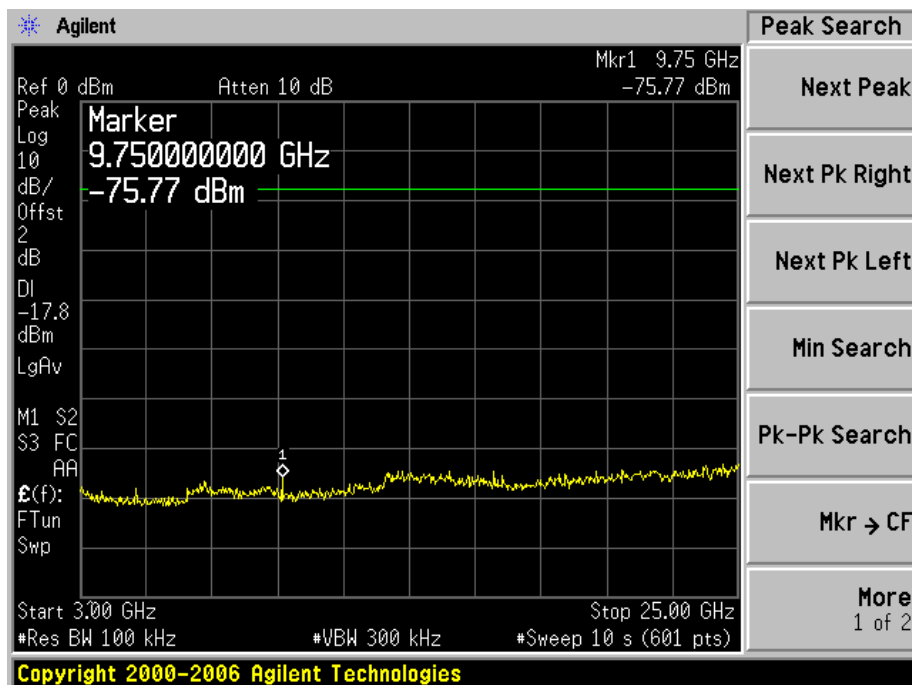
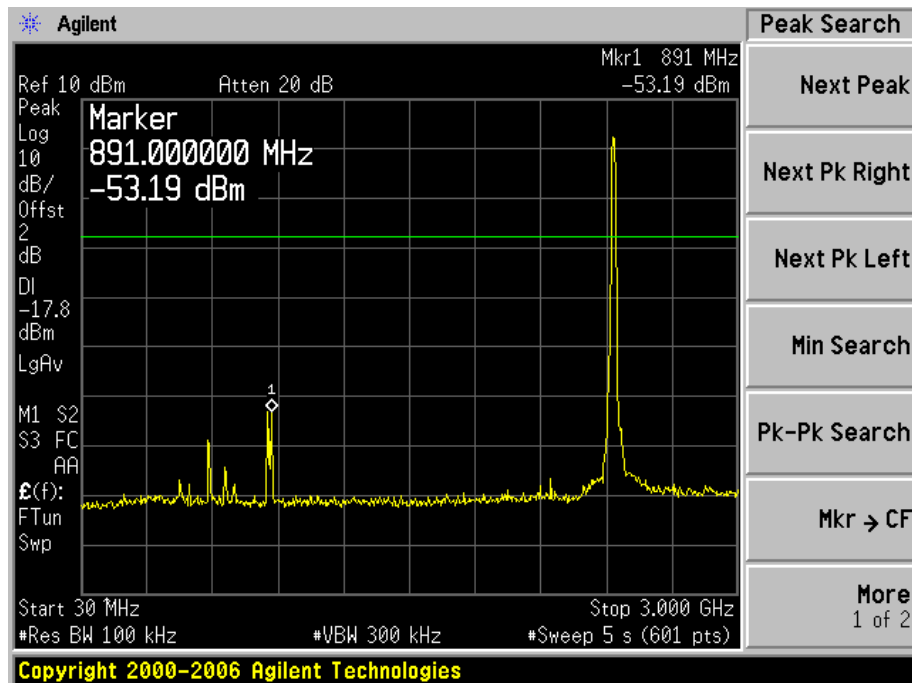
Antenna Port Conducted Spurious Emissions

Channel Frequency (MHz)	Data Rate (Mbps)	Delta Value (dBc)	Limit (dBc)	Ref Plot	Result
802.11b mode					
2412	1	*	20	Plot 1	Pass
2437	1	*	20	Plot 2	Pass
2462	1	*	20	Plot 3	Pass
802.11g mode					
2412	6	*	20	Plot 4	Pass
2437	6	*	20	Plot 5	Pass
2462	6	*	20	Plot 6	Pass

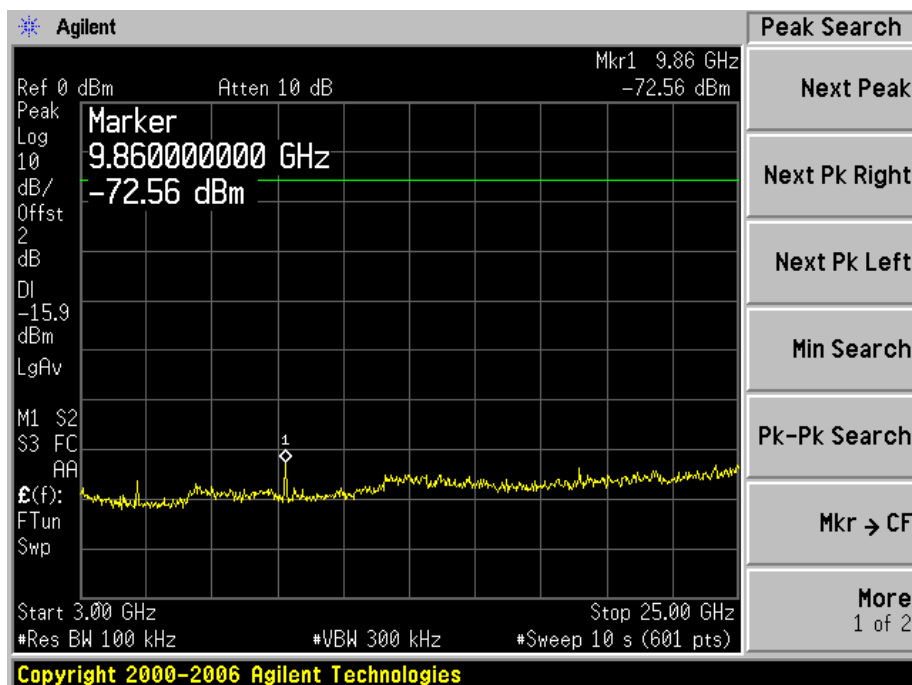
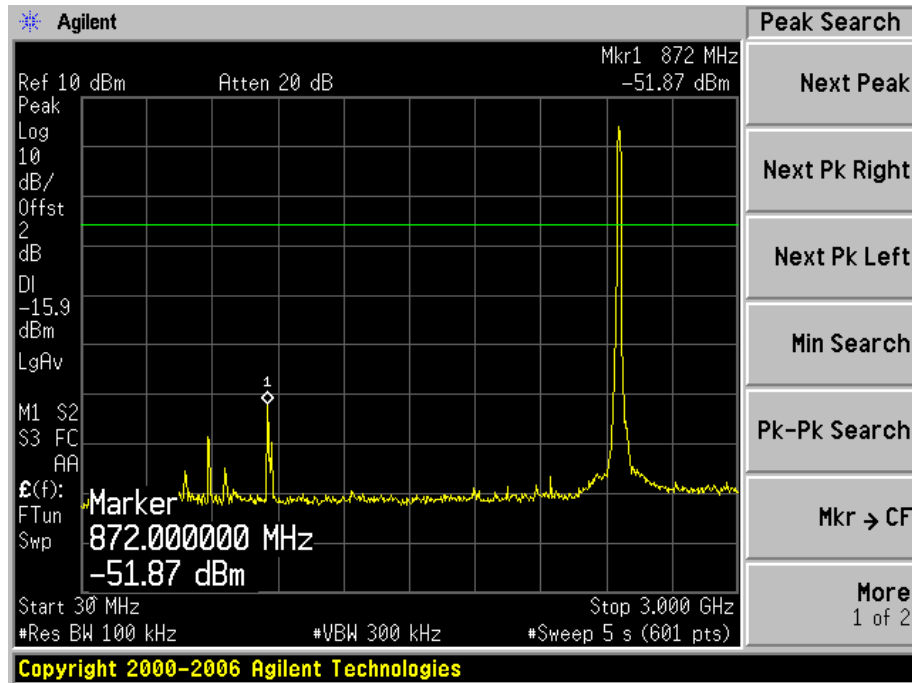
Plot 1: 802.11b Low Channel



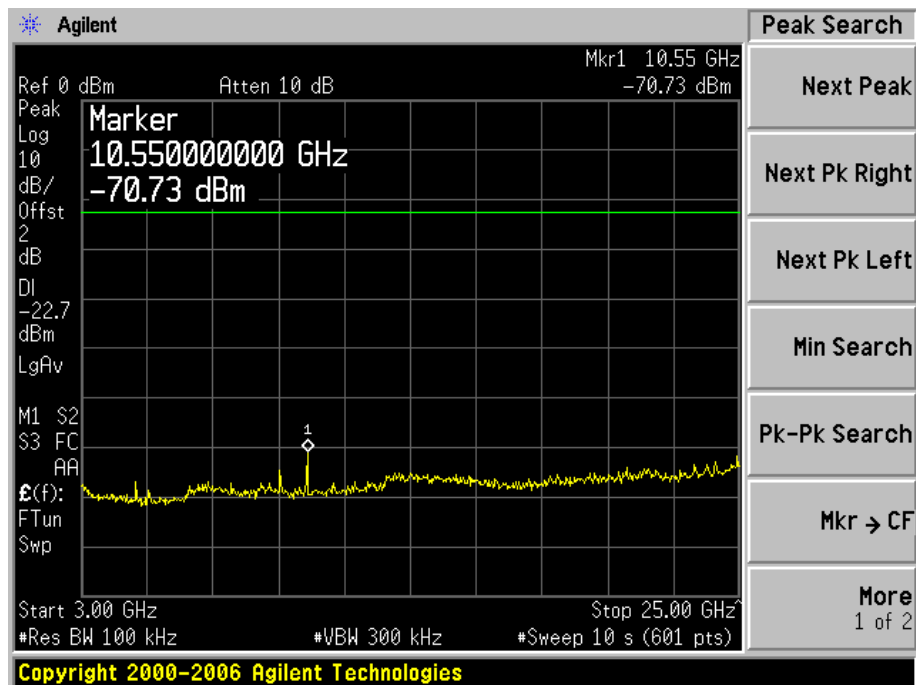
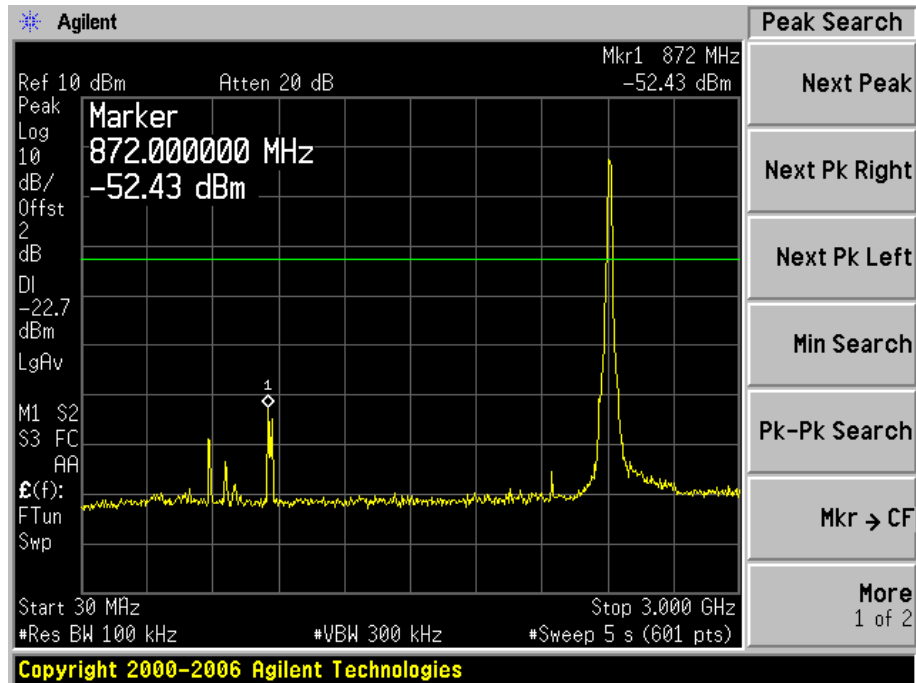
Plot 2: 802.11b Middle Channel



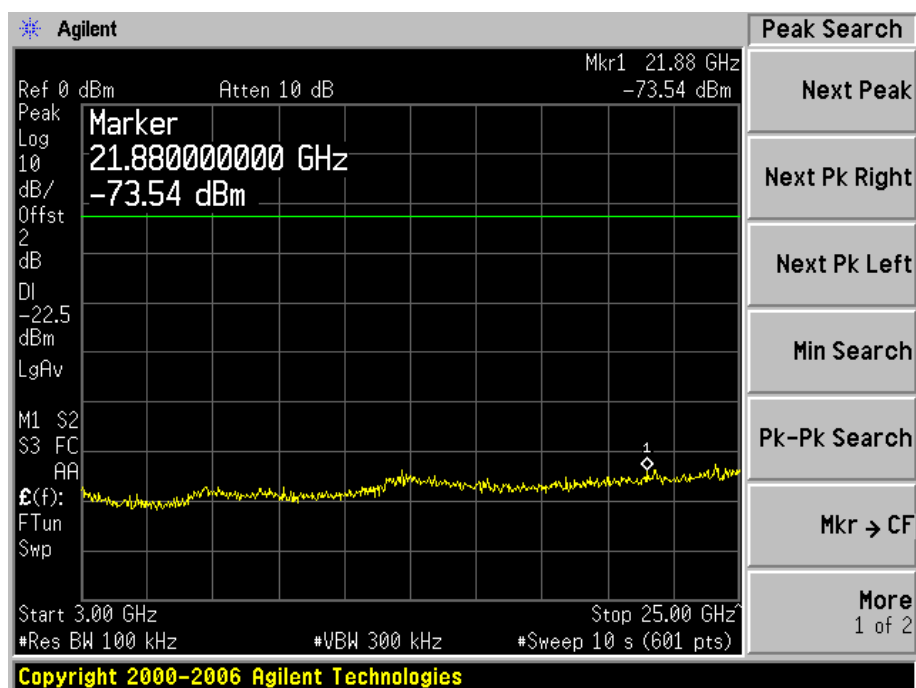
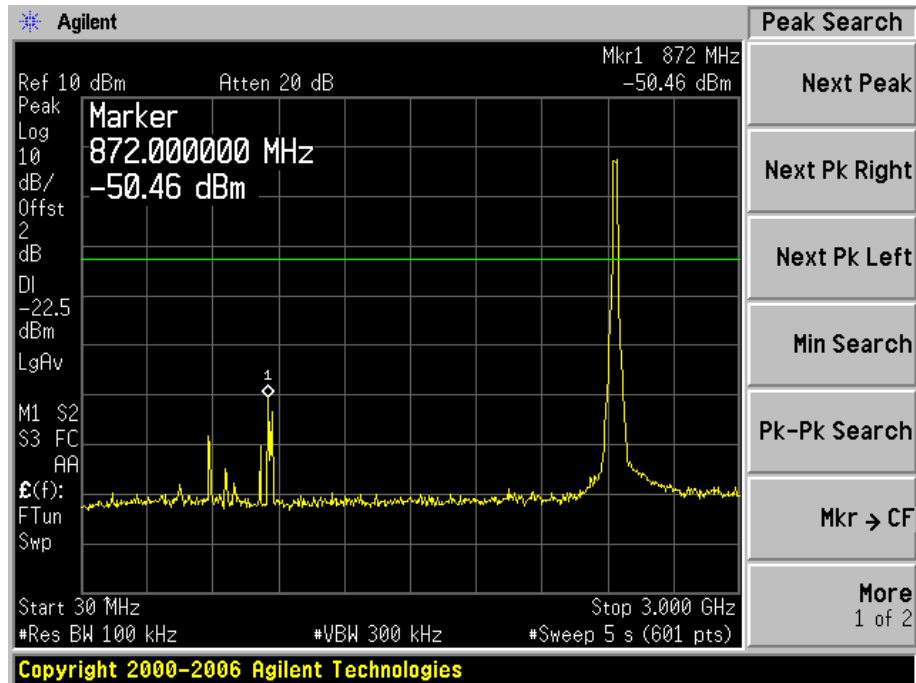
Plot 3: 802.11b High Channel



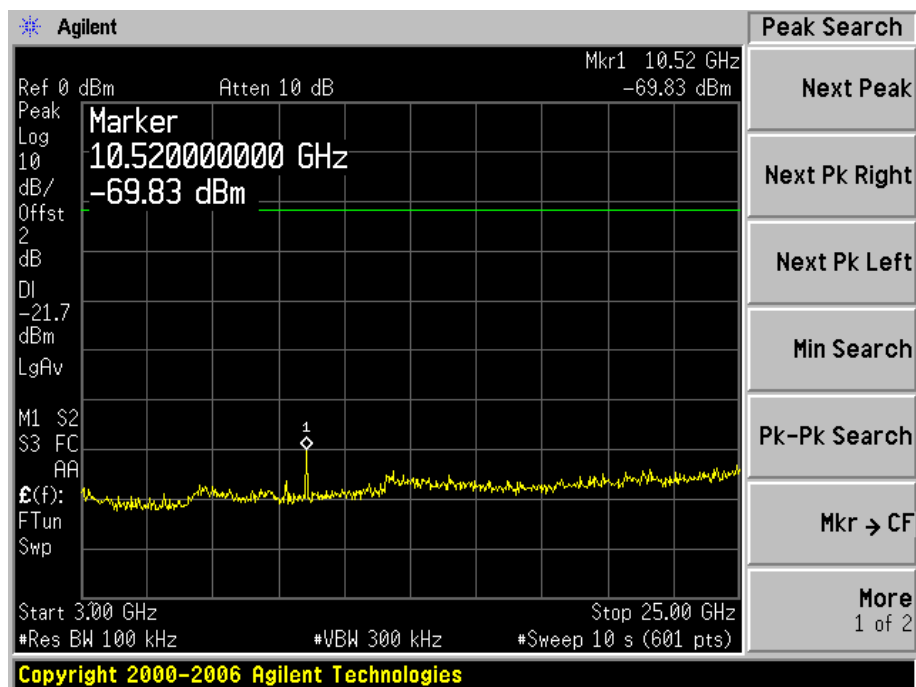
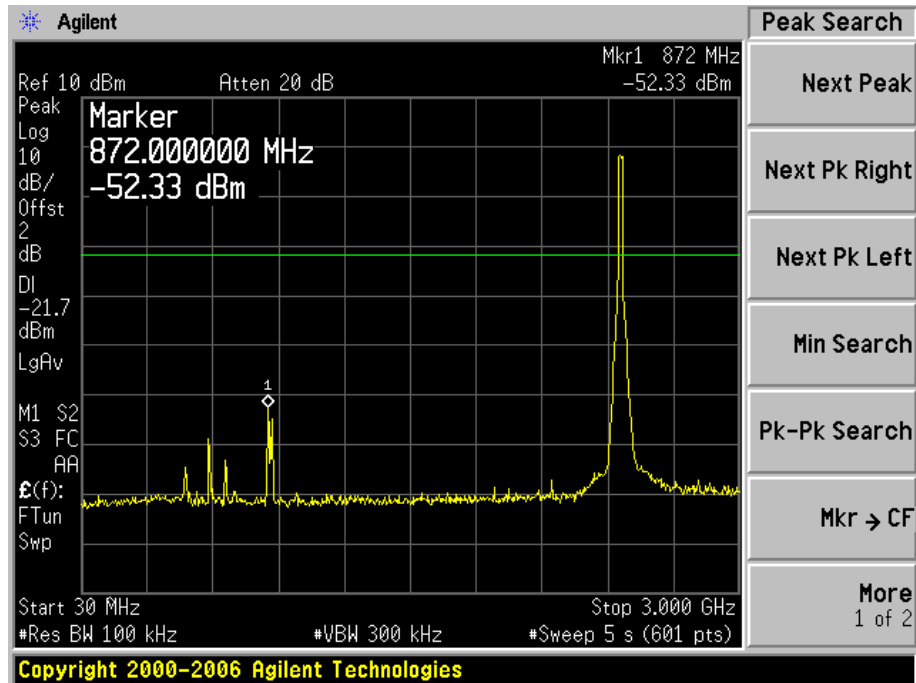
Plot 4: 802.11g Low Channel



Plot 5: 802.11g Middle Channel



Plot 6: 802.11g High Channel



§15.247(a) (2) – 6 dB BANDWIDTH TESTING

Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum Analyzer	E4440A	MY44303352	2009-04-27	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.0kPa

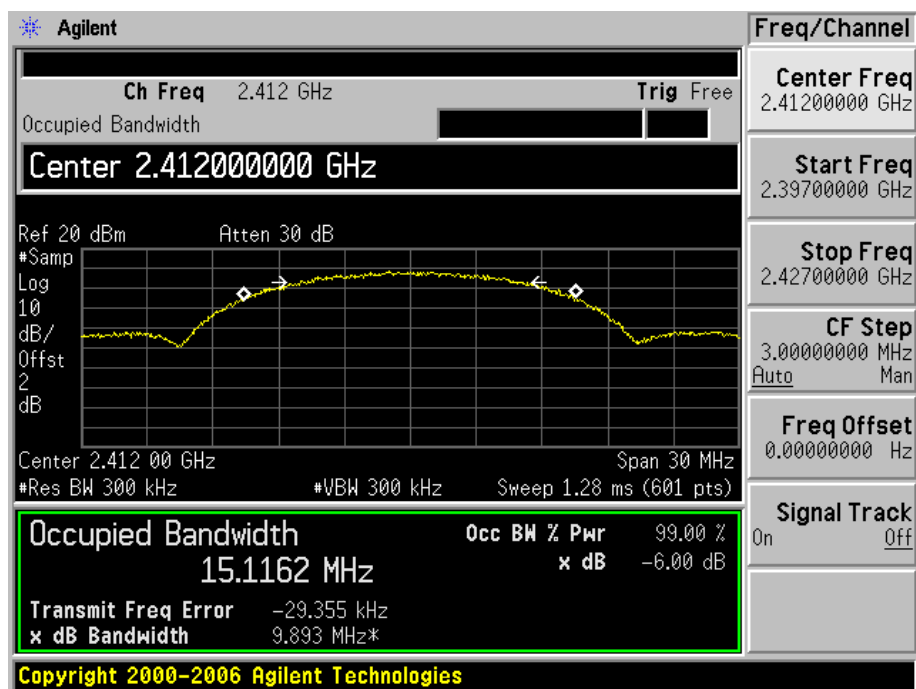
The testing was performed by Victor Zhang on 2009-07-15

Test Result: Pass.

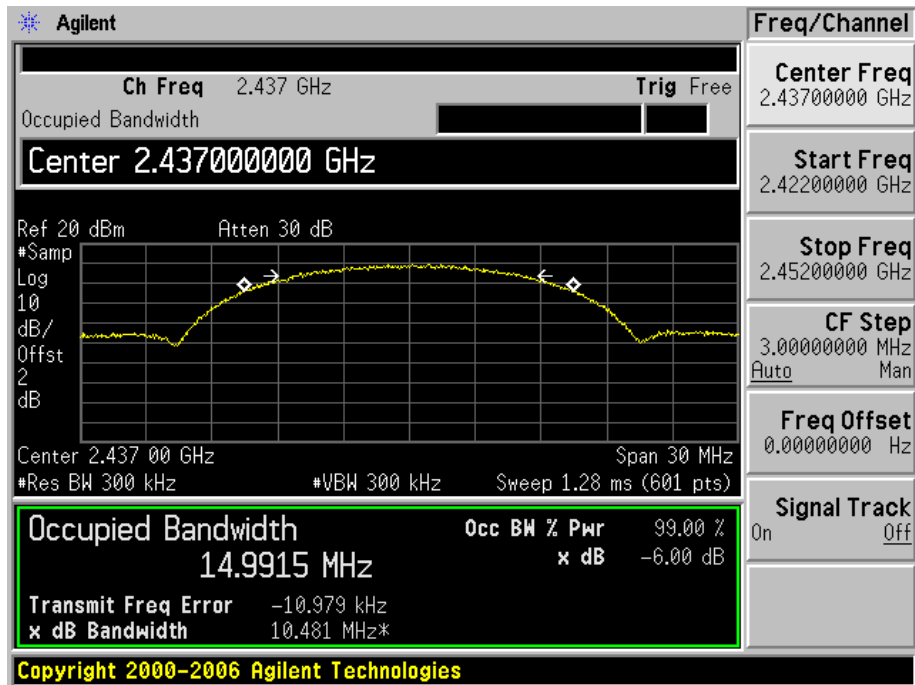
Please refer to the following tables and plots.

Channel	Frequency (MHz)	Data Rate (Mbps)	6 dB Bandwidth (MHz)	Limit (kHz)
802.11b mode				
Low Channel	2412	1	15.1162	>500
Middle Channel	2437	1	14.9915	>500
High Channel	2462	1	14.9161	>500
802.11g mode				
Low Channel	2412	6	16.5735	>500
Middle Channel	2437	6	16.4676	>500
High Channel	2462	6	16.4772	>500

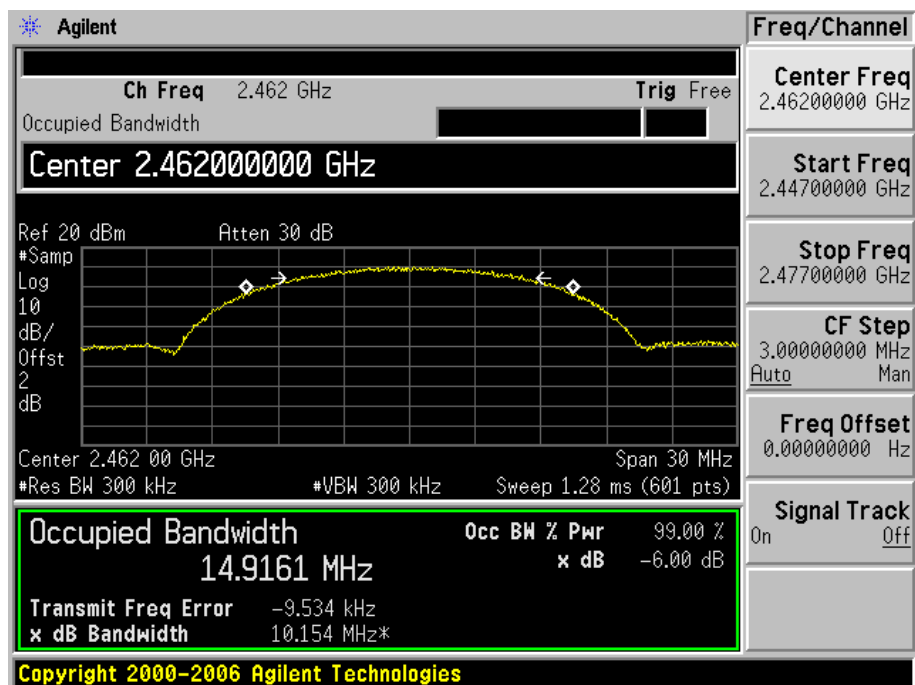
802.11b Low Channel



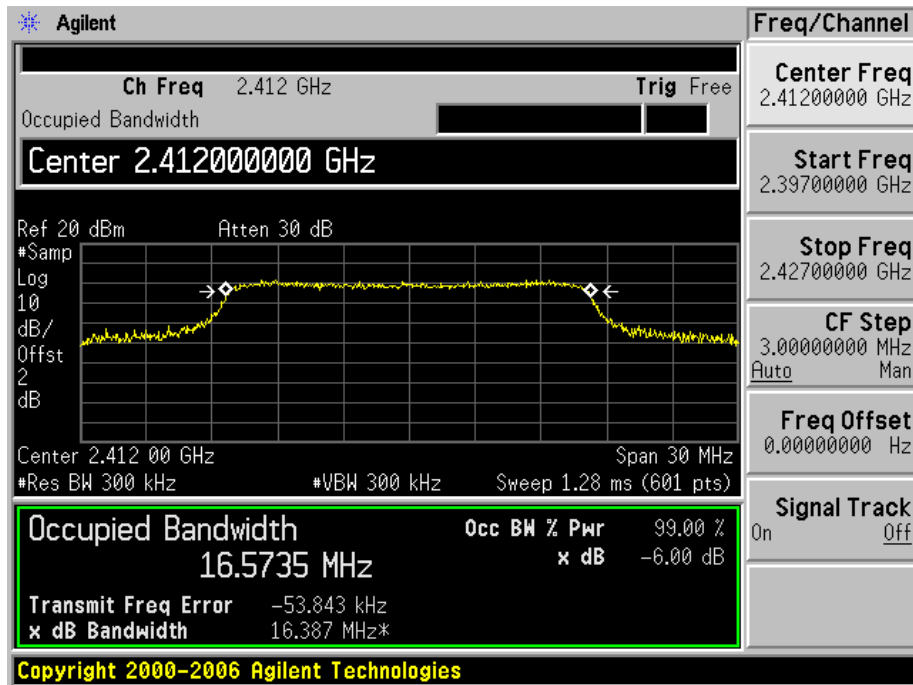
802.11b Middle Channel



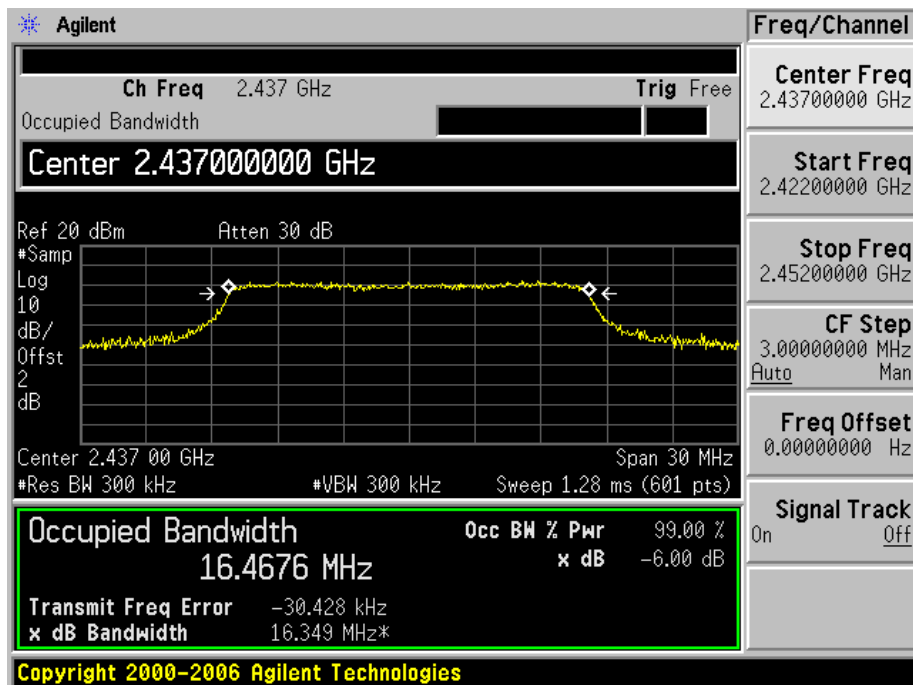
802.11b High Channel



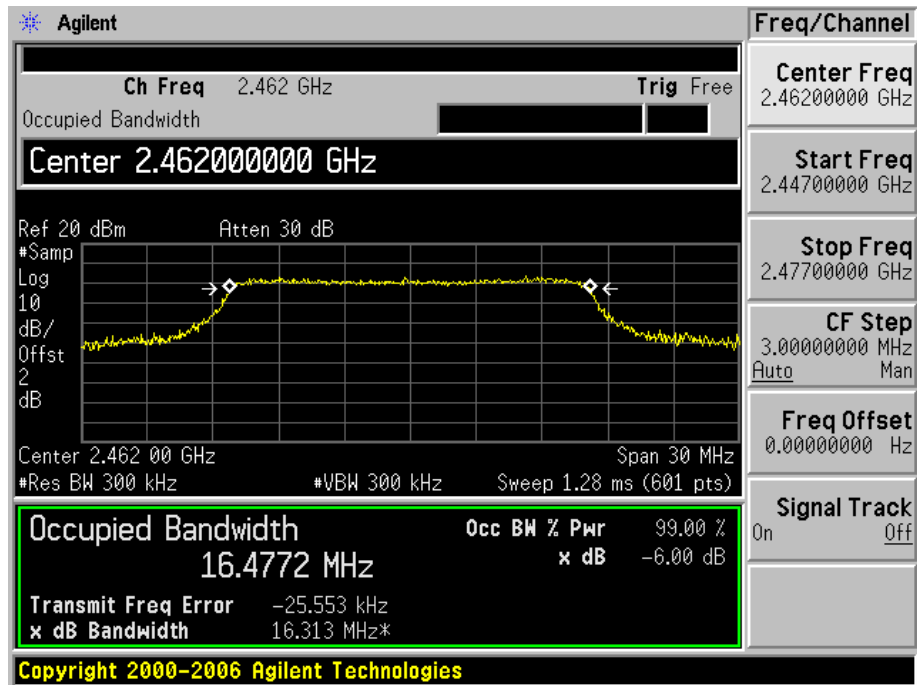
802.11g Low Channel



802.11g Middle Channel



802.11g High Channel



§15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

Applicable Standard

According to §15.247(b) (3), for systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

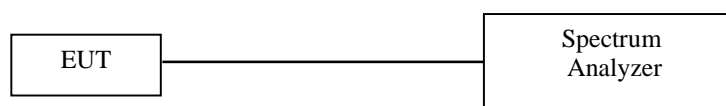
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum Analyzer	E4440A	MY44303352	2009-04-27	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. Add a correction factor to the display.



Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

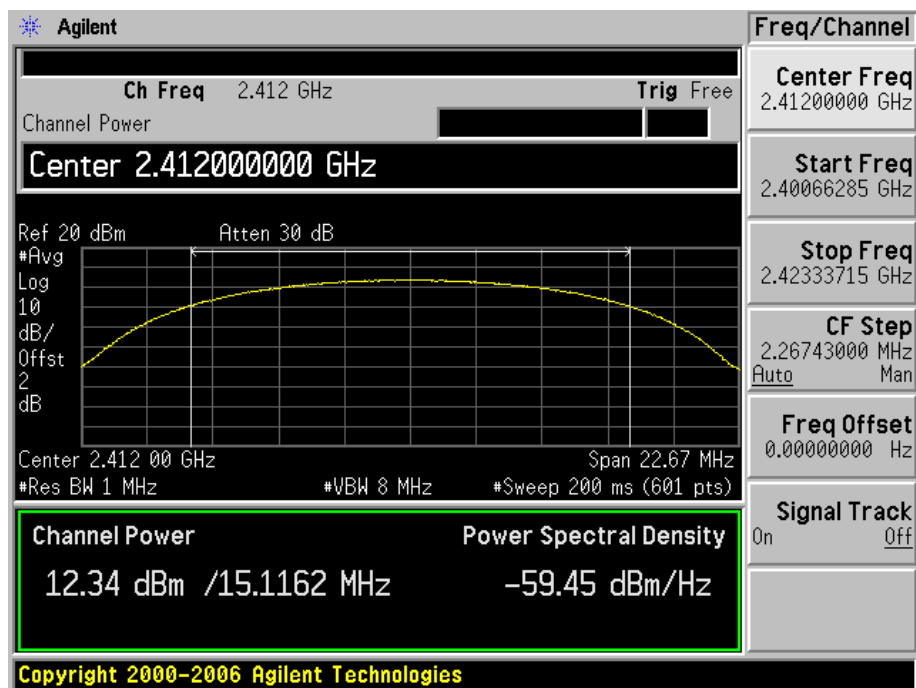
The testing was performed by Victor Zhang on 2009-07-15.

Test Mode: Transmitting

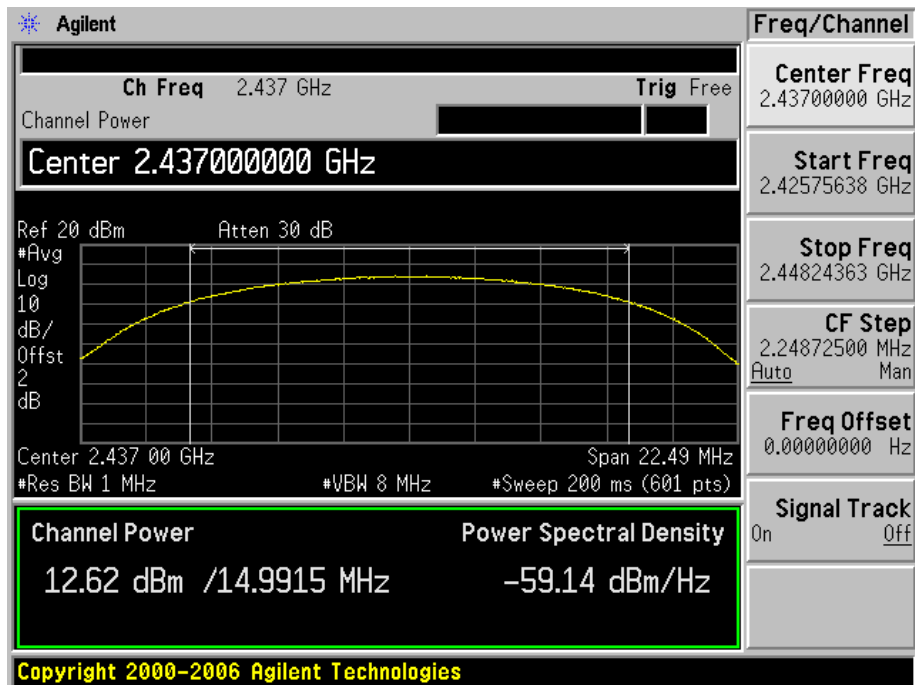
Test Result: Pass

Channel	Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)	Limit (dBm)
802.11b mode				
Low	2412	1	12.34	30
Middle	2437	1	12.62	30
High	2462	1	12.95	30
802.11g mode				
Low	2412	6	11.57	30
Middle	2437	6	11.99	30
High	2462	6	12.85	30

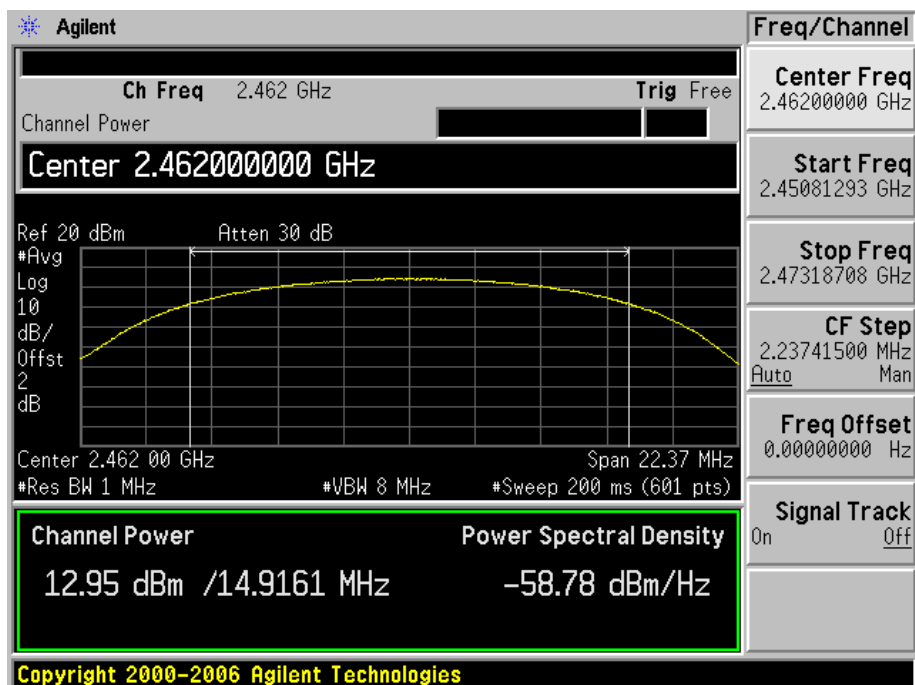
802.11b Low Channel



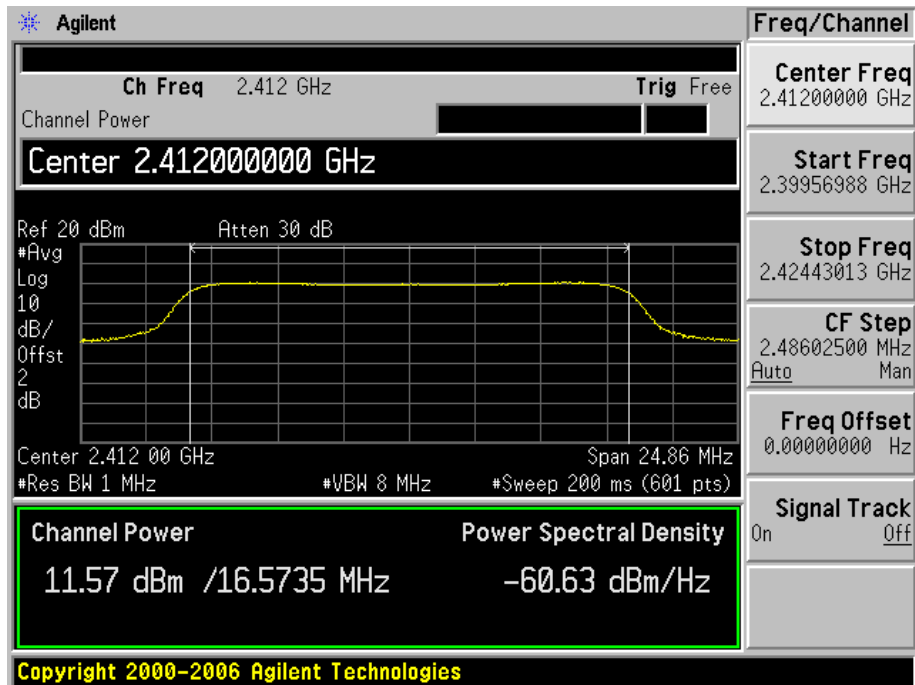
802.11b Middle Channel



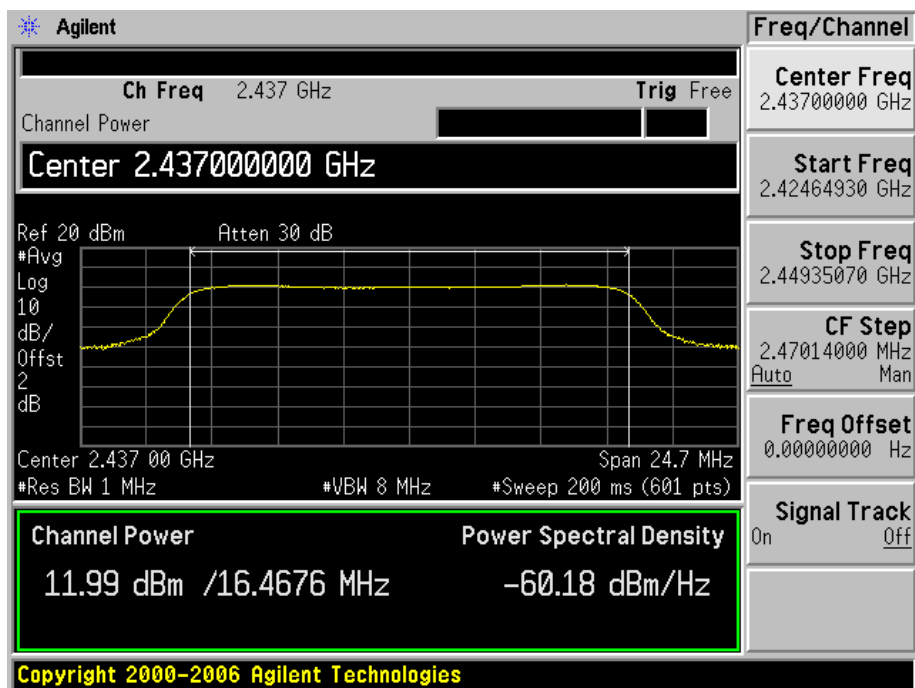
802.11b High Channel



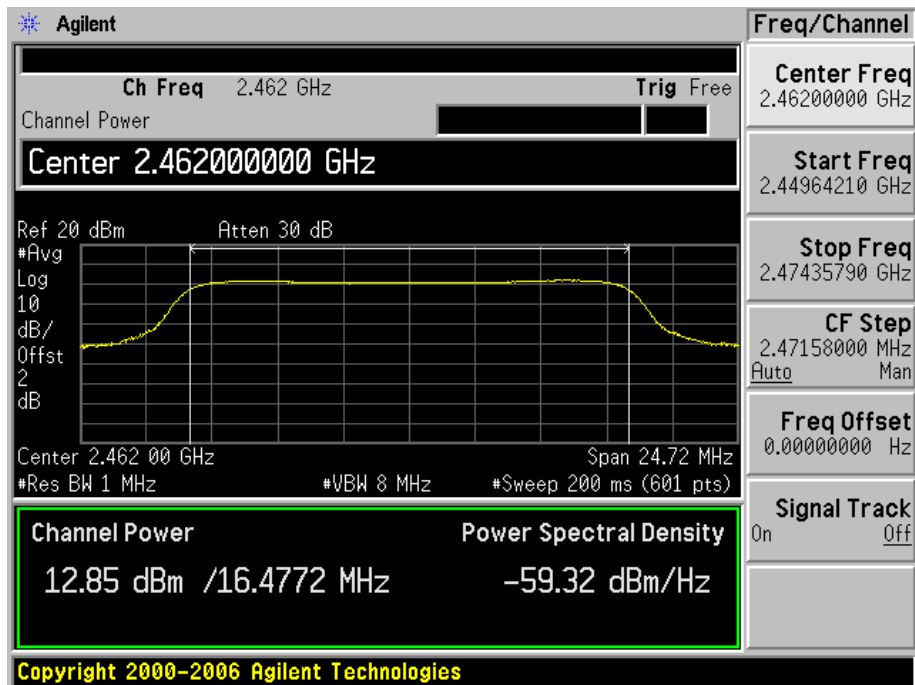
802.11g Low Channel



802.11g Middle Channel



802.11g High Channel



§15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum Analyzer	E4440A	100035	2009-04-27	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 1 MHz and VBW of spectrum analyzer to 1 MHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

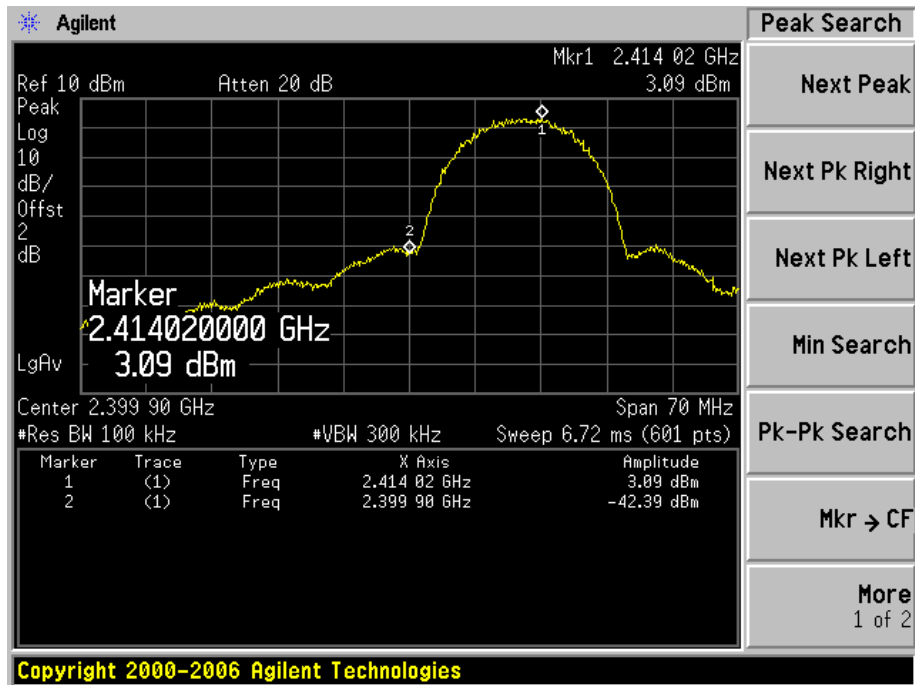
The testing was performed by Victor Zhang on 2009-07-15.

Test Result: *Compliant.*

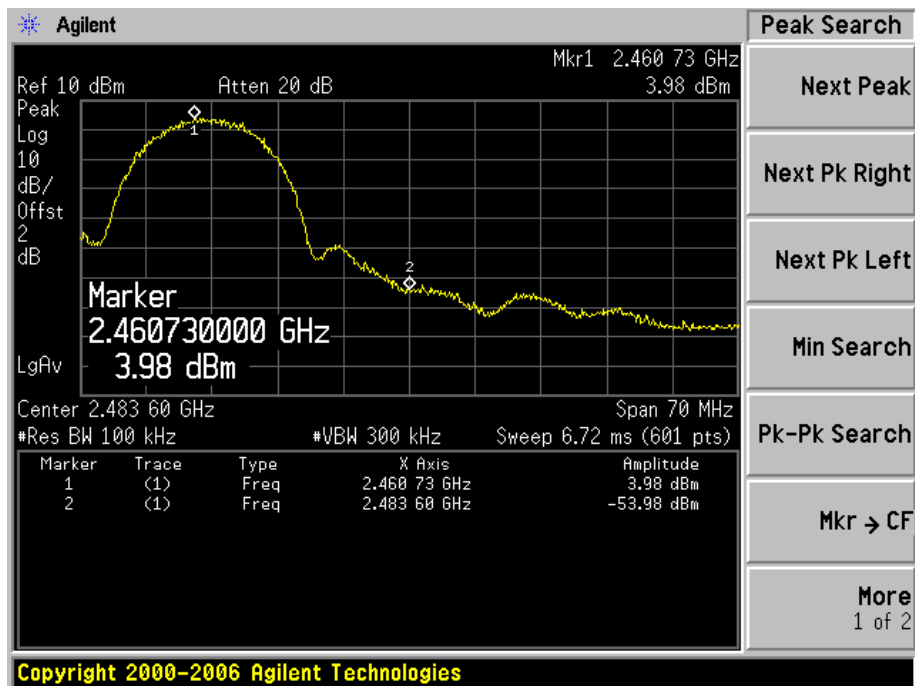
Frequency (MHz)	Delta Peak to band emission (dBc)	Limit (dBc)
802.11b mode		
2397.080	45.48	20
2487.460	57.96	20
802.11g mode		
2399.640	26.80	20
2484.160	35.58	20

Please refer to following plots.

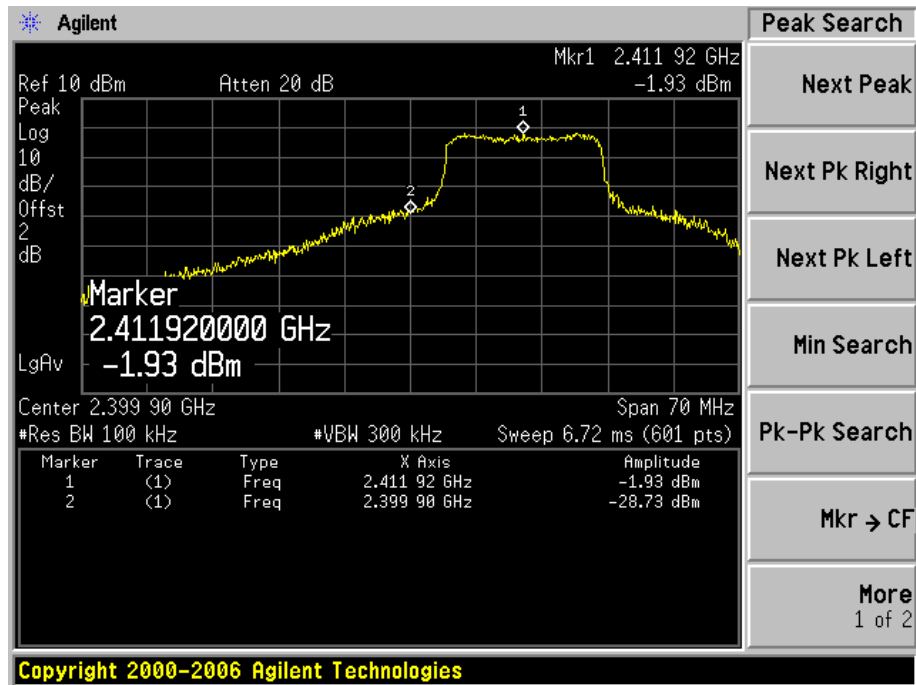
802.11b: Band Edge, Lowest CH



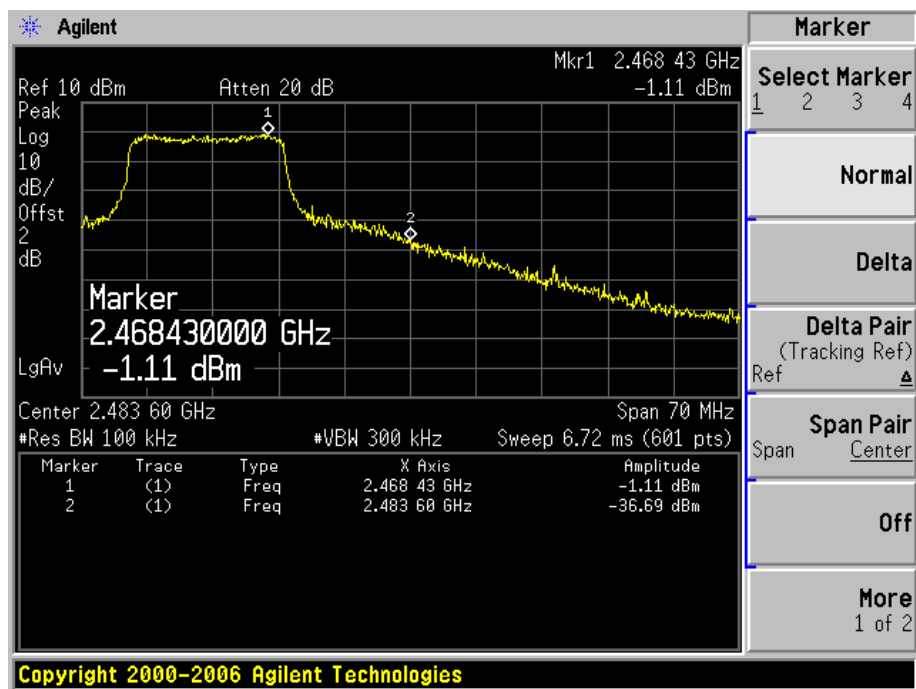
802.11b: Band Edge, Highest CH



802.11g: Band Edge, Lowest CH



802.11g: Band Edge, Highest CH



§15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum Analyzer	E4440A	100035	2009-04-27	2010-04-27

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to 1.5MHz span mode. And then, set RBW and VBW of spectrum analyzer to proper value. (DTS)
4. Repeat above procedures until all frequencies measured were complete.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

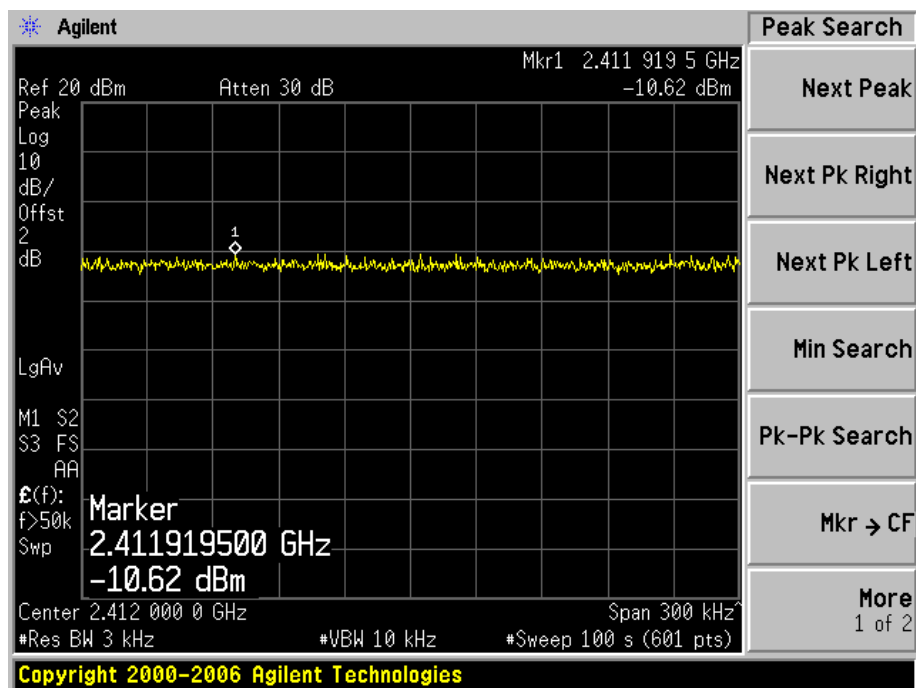
The testing was performed by Victor Zhang on 2009-07-15.

Test Mode: Transmitting

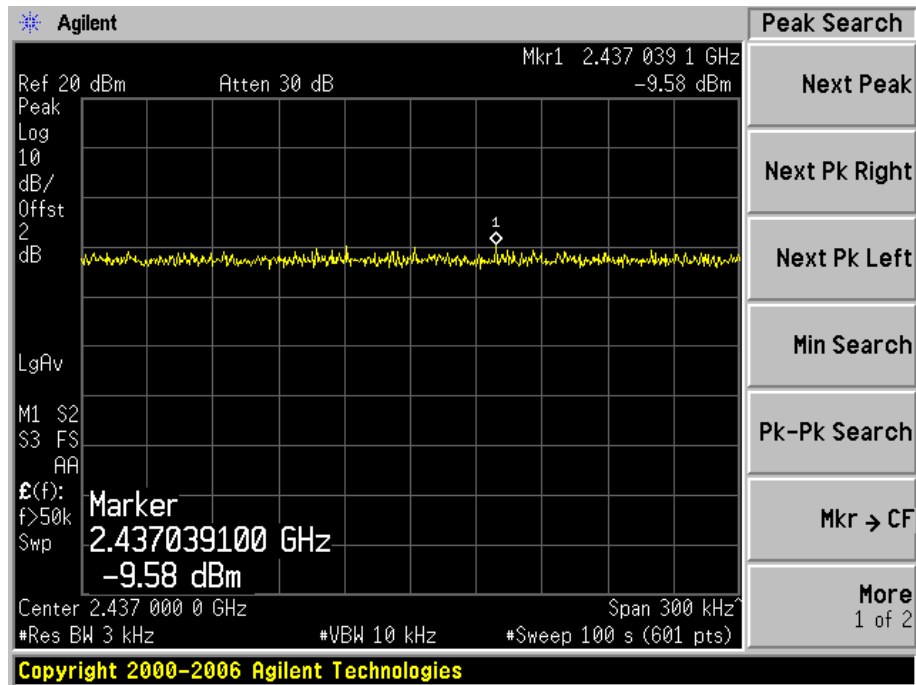
Test Result: Pass

Channel	Frequency (MHz)	Data Rate (Mbps)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11b mode					
Low	2412	1	-10.62	8	Pass
Middle	2437	1	-9.58	8	Pass
High	2462	1	-9.28	8	Pass
802.11g mode					
Low	2412	6	-10.08	8	Pass
Middle	2437	6	-8.92	8	Pass
High	2462	6	-7.94	8	Pass

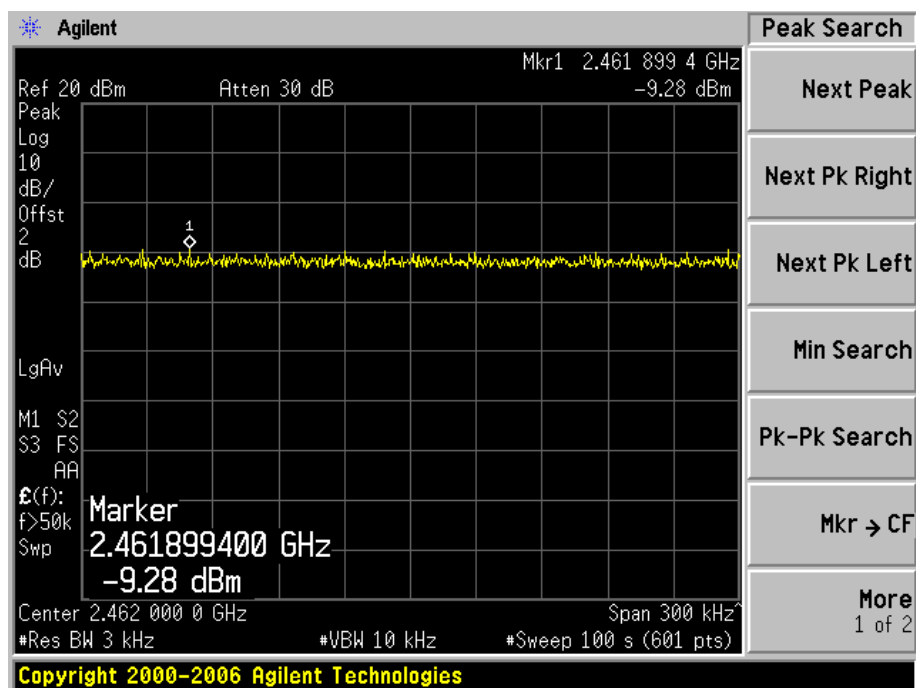
802.11b Low Channel



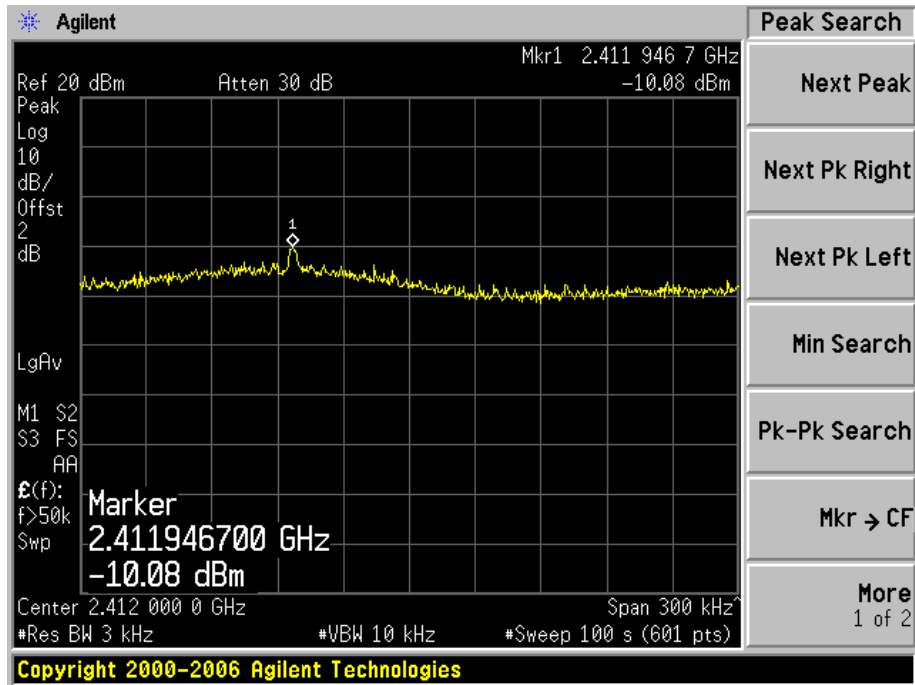
802.11b Middle Channel



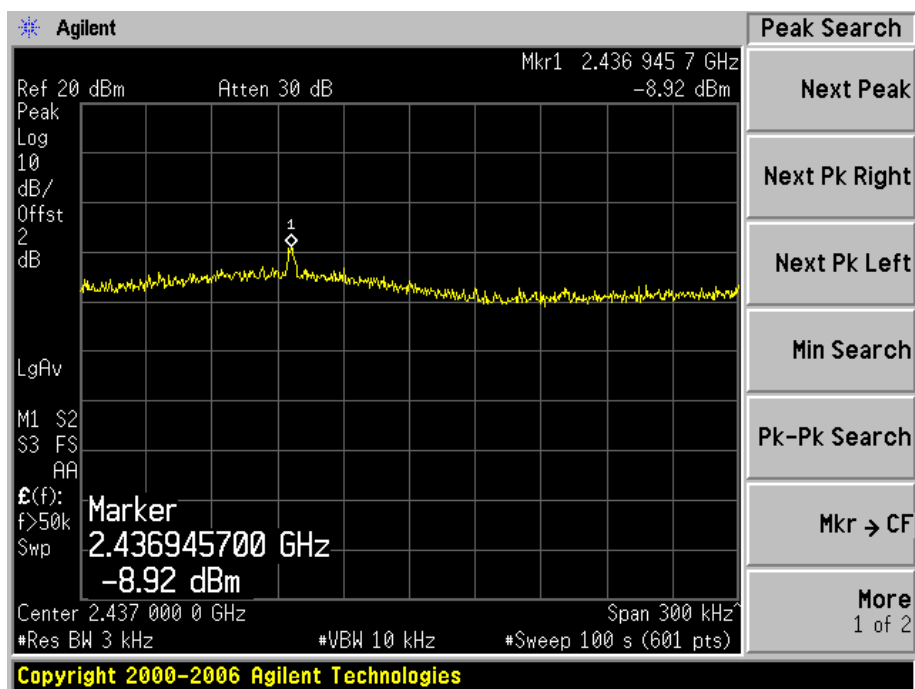
802.11b High Channel



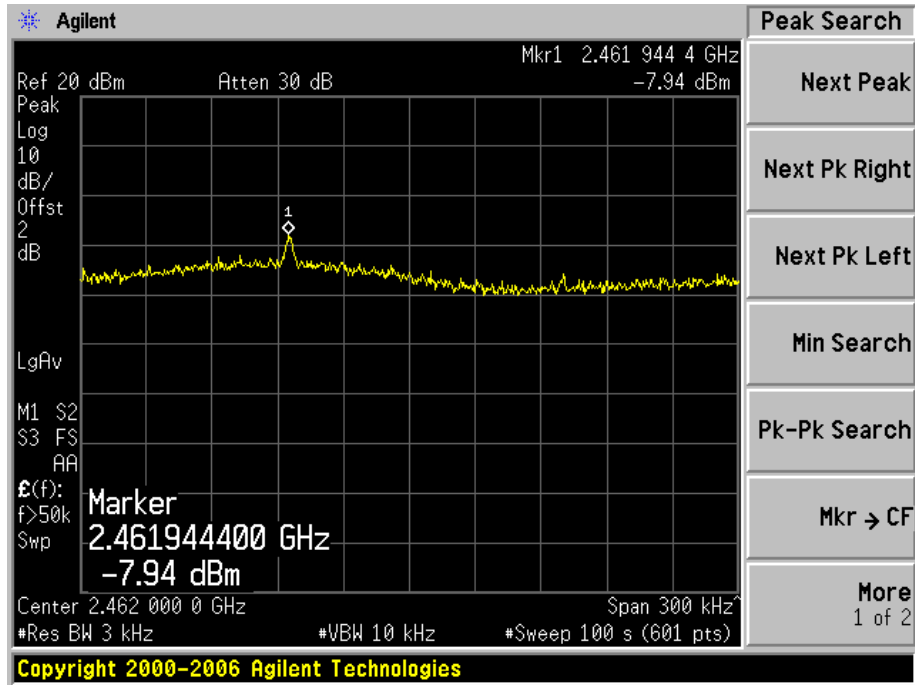
802.11g Low Channel



802.11g Middle Channel



802.11g High Channel



DECLARATION LETTER



Product Similarity Declaration

To Whom It May Concern,

We, FIYING TECHNOLOGY DEVELOPMENT CO.,LTD, hereby declare that our GSM&GPRS Dual Standby Mobile Phone, Model Number: F009, F999, D9A are electrically identical with the Model Number: F8 that was certified by BACL. F009, F999, D9A and F8 are named differently due to marketing purposes.

Please contact me if you have any question.

Signature:

Print Name: Yuanjian Hu

Title: Engineering Manager

Date:2009-07-06

******* END OF REPORT *******