



FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : Wireless Access Point
Trade(Model) Name : ACCTON(MR3201A), FON(FON2100A 、
FON2100B 、 FON2100C 、 FON2100F),
Edge-Core(WA3101)
FCC ID : HED-FON2100
Filing Type : Certification
Applicant : Accton Technology Corporation
No. 1 Creation 3rd RD., Science-based Industrial Park, Hsinchu
30077, Taiwan, R.O.C.

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- The data shown in this test report were carried out on Aug. 09, 2006 at **Sporton International Inc. LAB.**
- Report No.: FR661605-02, Report Version: Rev. 03

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Table of Contents

History of this test report.....ii

1. General Description of Equipment under Test..... 1

1.1 Applicant 1

1.2 Manufacturer 1

1.3 Basic Description of Equipment under Test 1

1.4 Feature of Equipment under Test 1

1.5 Feature of Equipment under Test 2

2 Test Configuration of Equipment under Test 3

2.1 Test Manner 3

2.2 Test Mode 3

2.3 Connection Diagram of Test System 3

2.4 Ancillary Equipment List 4

3. RF Utility 5

4. General Information of Test..... 6

4.1 Test Voltage 6

4.2 Standard for Methods of Measurement..... 6

4.3 Test in Compliance with 6

4.4 Frequency Range Investigated 6

4.5 Test Distance 6

5. Test Data and Test Result..... 7

5.1 List of Measurements and Examinations 7

5.2 6dB Bandwidth Measurement 8

5.3 Power Spectral Density Measurement..... 15

5.4 Band Edges Measurement..... 23

5.5 Peak Output Power Measurement 30

5.6 Conducted Emission 31

5.7 Radiated Emission Measurement 36

5.8 Antenna Requirements 96

6. List of Measuring Equipments Used 97

7. Uncertainty Evaluation..... 98

Appendix A. Photographs of EUT External

Appendix B. Photographs of EUT Internal

Appendix C. Photographs of Setup



1. General Description of Equipment under Test

1.1 Applicant

Accton Technology Corporation

No. 1 Creation 3rd RD., Science-based Industrial Park, Hsinchu 30077, Taiwan, R.O.C.

1.2 Manufacturer

Accton Technology Corporation

No. 1, Creation 3rd Rd., Science-base Industrial Park, Hsinchu 30077, Taiwan, R.O.C.

1.3 Basic Description of Equipment under Test

- Equipment : Wireless Access Point
- Trade(Model) Name : ACCTON(MR3201A), FON(FON2100A、FON2100B、FON2100C、FON2100F), Edge-Core(WA3101)
- FCC ID : HED-FON2100
- Power Supply Type : Switching
- AC Power Cord : AC 120V, Non-shielded, Wall-mount, 1.8 meter, 2 pin
- Adapter 1 : Leader, MU12-2050200-A1
- Adapter 2 : DVE, DSA-0101F-05A

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. Type of Modulation	DSSS / OFDM			
2. Number of Channels	11			
3. Frequency Band	2.4GHz~2.4835GHz			
4. Carrier Frequency of each channel	2412MHz+(n-1)*5MHz, n=1~11			
5. Channel Spacing	5MHz			
6. Maximum Output Power to Antenna (Normal Condition)	802.11b: 21.03 dBm 802.11g: 24.89 dBm			
7. Type of Antenna Connector	Refer to Antenna list 1.5			
8. Antenna Type				
9. Antenna Gain				
10. Function Type	Transmitter		Transceiver	V
11. Power Rating (DC/AC Voltage) :	DC 5V			



1.5 Feature of Equipment under Test

Antenna Type	Trade / Model Name	Net Gain(dBi)	Frequency Range (GHz)	Application	Housing Type	Connector Type
Dipole	Lct / FSL_WH3404-52T	1.5	2.4~2.5	11b/g	Plastics	Reverse SMA
Dipole	Lct / FSD_BL3404-52T	1.5	2.4~2.5	11b/g	Plastics	Reverse SMA
Dipole	Lct / FSD_WH3404-52T	1.5	2.4~2.5	11b/g	Plastics	Reverse SMA
Dipole	Lct / FSD_BL3404-52	1.5	2.4~2.5	11b/g	Plastics	Reverse SMA
Dipole	Lct / FSD_WH3404-52	1.5	2.4~2.5	11b/g	Plastics	Reverse SMA

2 Test Configuration of Equipment under Test

2.1 Test Manner

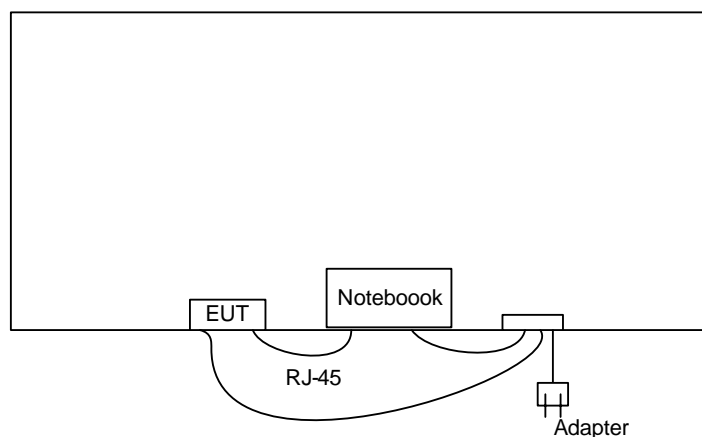
- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Test Mode

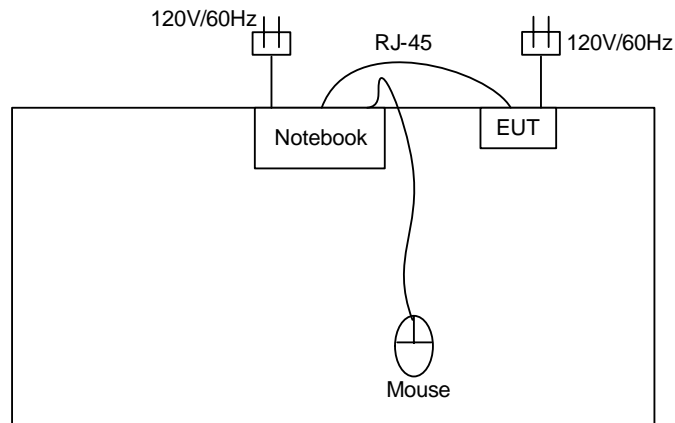
Application		
Radiated Emission	802.11b	802.11g
	Mode 1: Tx_CH06_2437 MHz with Adapter 1	Mode 5: Tx_CH01_2412 MHz with Adapter 2
	Mode 2: Tx_CH01_2412 MHz with Adapter 2	Mode 6: Tx_CH06_2437 MHz with Adapter 2
	Mode 3: Tx_CH06_2437 MHz with Adapter 2	Mode 7: Tx_CH11_2462 MHz with Adapter 2
	Mode 4: Tx_CH11_2462 MHz with Adapter 2	
Conducted Emission	Mode 1: 802.11g Rx_CH06 with adapter 1	
	Mode 2: 802.11g Rx_CH06 with adapter 2	
Remark: The tested antenna is Lct / FSD_BL3404-52T.		

2.3 Connection Diagram of Test System

<Radiated Emission>



<Conducted Emission>



2.4 Ancillary Equipment List

Item	Asset	Model Name	Power Cord
1.	Notebook (DELL)	D400	N/A
2.	USB Mouse (Microsoft)	B75-00093	N/A
3.	RJ-45	N/A	Non-shielded, 2m



3. RF Utility

The executive program, EMCTEST.EXE and Art under WIN XP installed in notebook, which generates a complete line of continuously repeating " H" pattern were used as the test software.

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



4. General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055

Test Site No : CO01-HY, 03CH06-HY

4.1 Test Voltage

120V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

a. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.



5. Test Data and Test Result

5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209(a)	Radiated Emission	Pass
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(b)(4)	Antenna Requirement	Pass

5.2 6dB Bandwidth Measurement

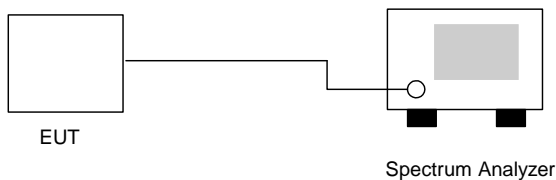
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	12.08	> 0.5MHz	Mode 1
06	2437	12.04	> 0.5MHz	Mode 2
11	2462	12.04	> 0.5MHz	Mode 3

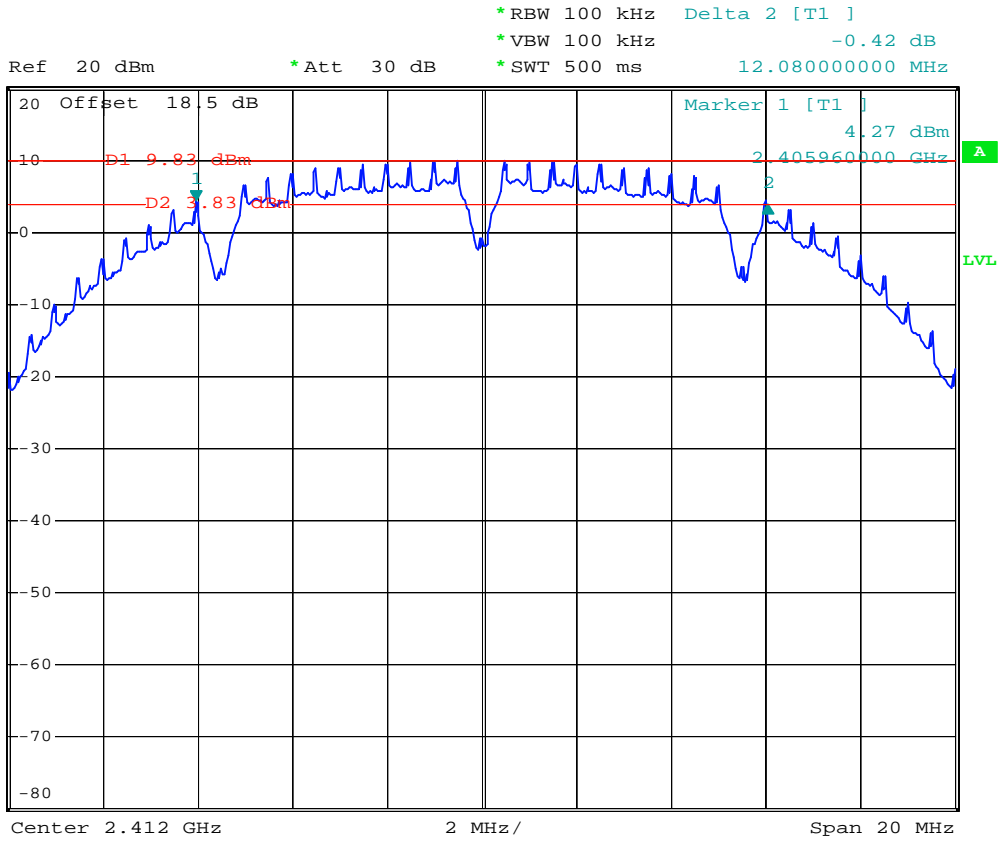
802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.56	> 0.5MHz	Mode 4
06	2437	16.60	> 0.5MHz	Mode 5
11	2462	16.60	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

Mode 1



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Mode 2

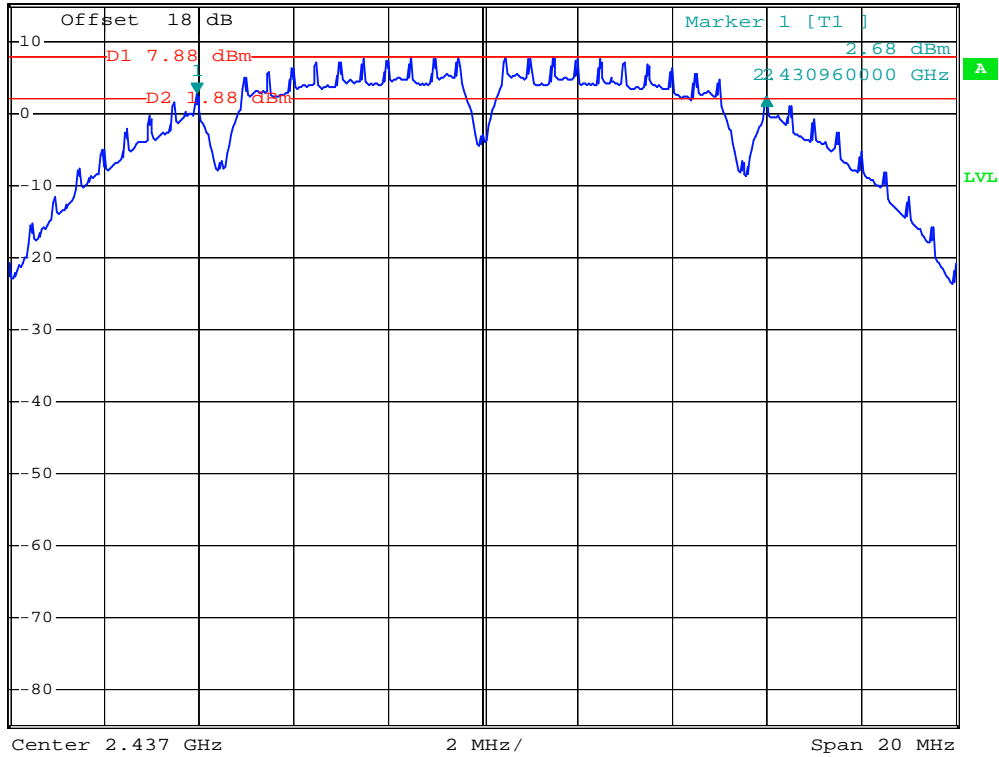


*RBW 100 kHz Delta 2 [T1]
*VBW 100 kHz -0.33 dB
*SWT 500 ms 12.04000000 MHz

Ref 15 dBm

*Att 20 dB

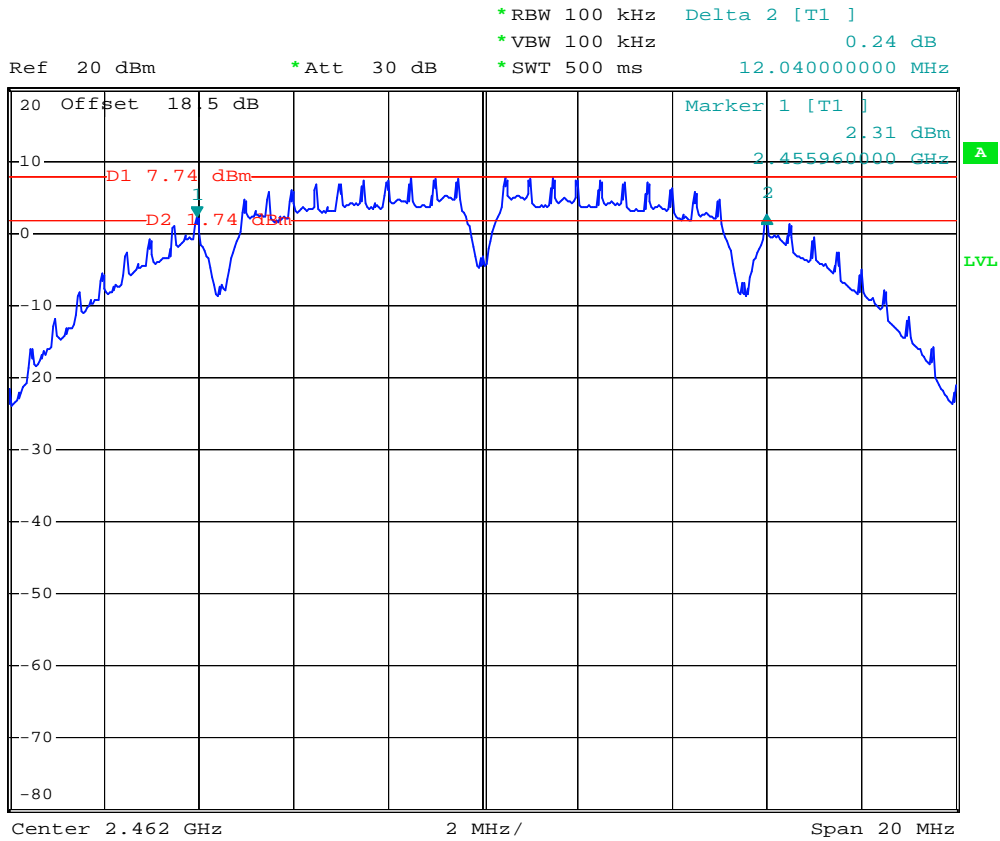
1 PK
MAXH



Date: 27.JUN.2006 05:38:18



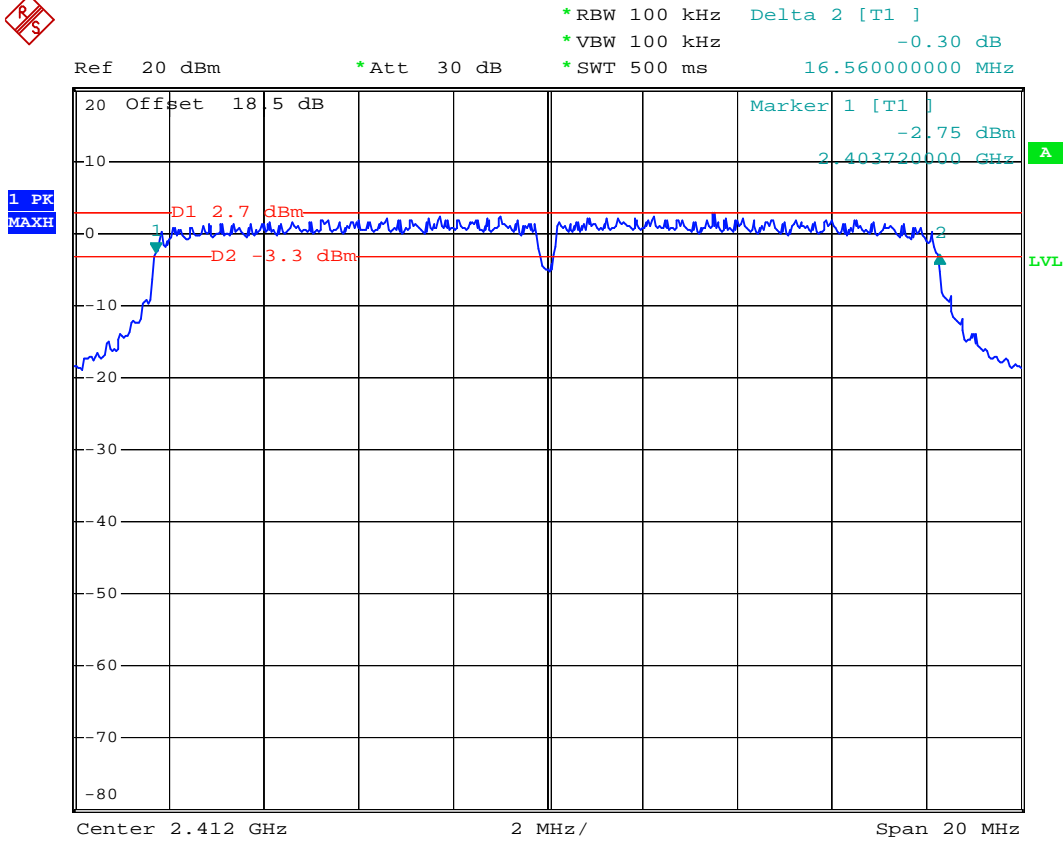
Mode 3



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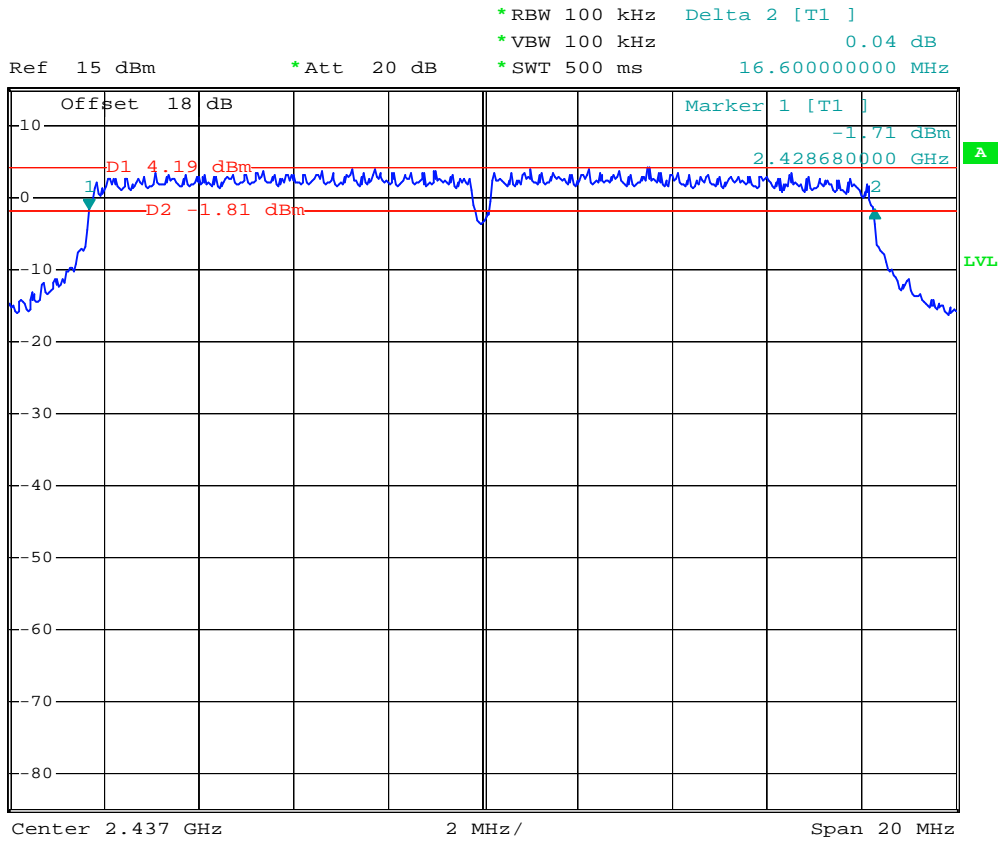
Mode 4



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Mode 5



Date: 27.JUN.2006 05:42:03



Mode 6

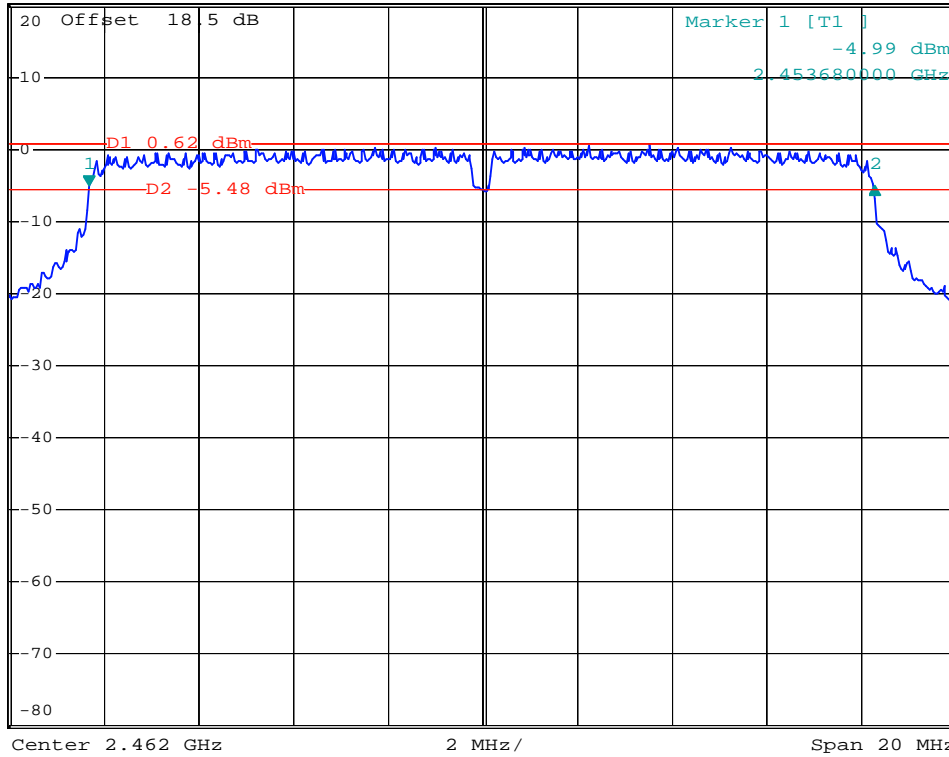


*RBW 100 kHz Delta 2 [T1]
*VBW 100 kHz -0.05 dB
*SWT 500 ms 16.60000000 MHz

Ref 20 dBm

*Att 30 dB

1 PK
MAXH



Date: 21.JUN.2006 14:17:20

5.3 Power Spectral Density Measurement

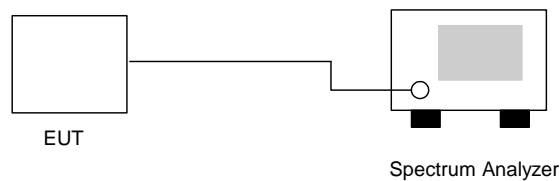
5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout :





5.3.4 Test Result :

- Application Type : 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-3.33	8	Mode 1
06	2437	-5.06	8	Mode 2
11	2462	-4.31	8	Mode 3

802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-8.35	8	Mode 4
06	2437	-6.42	8	Mode 5
11	2462	-8.93	8	Mode 6



5.3.5 Power Spectral Density

Mode 1

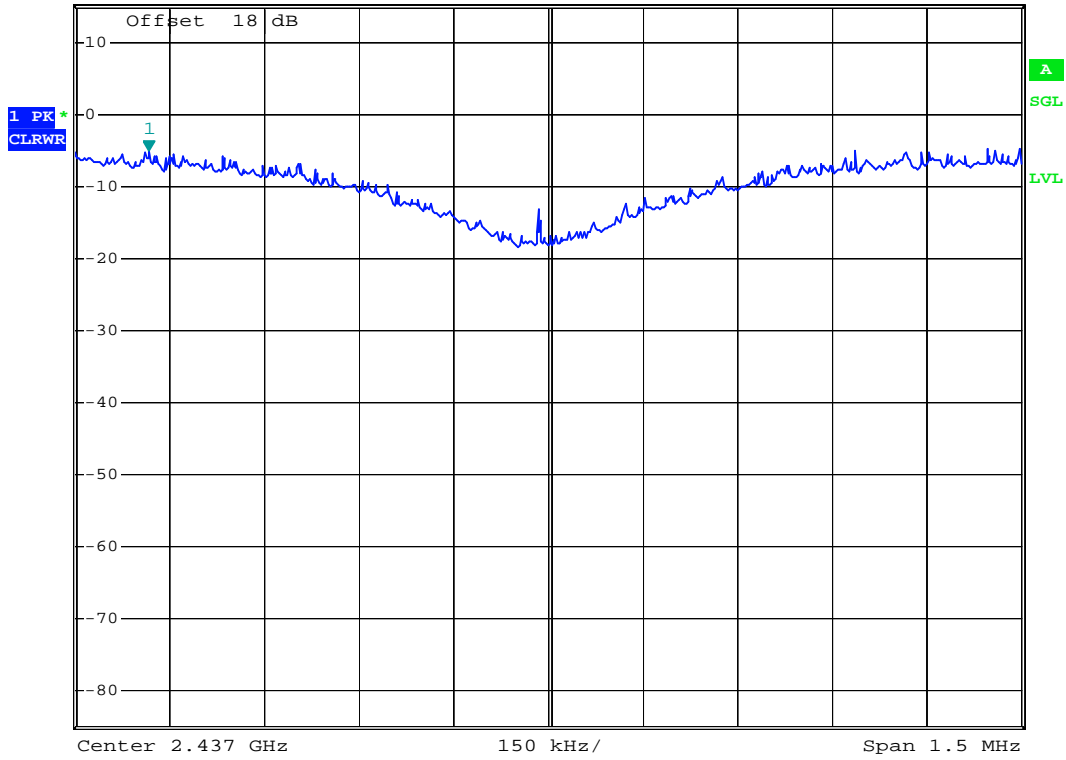




Mode 2



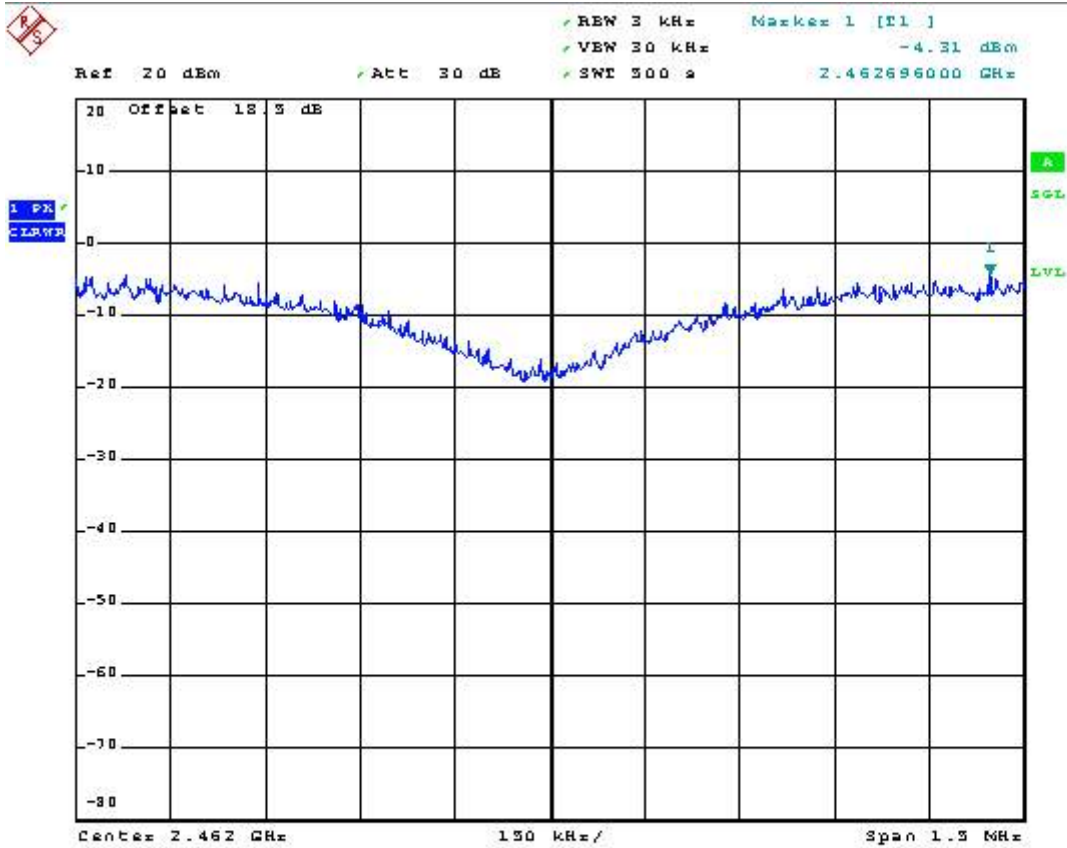
Ref 15 dBm *Att 20 dB *RBW 3 kHz Marker 1 [T1] -5.06 dBm
*VBW 30 kHz 2.436367000 GHz
*SWT 500 s



Date: 27.JUN.2006 06:06:22



Mode 3



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Mode 4

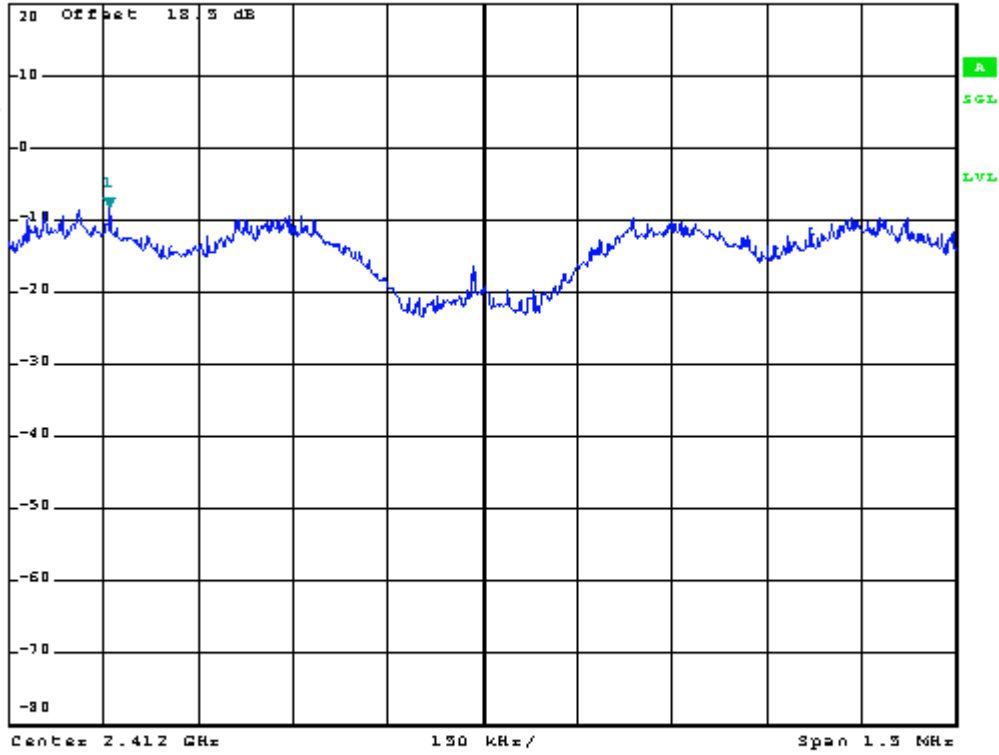


RES 3 kHz Marker 1 [T1]
VEW 30 kHz -8.33 dBm
SWT 300 a 2.411409000 GHz

Ref 20 dBm

Att 30 dB

1 PK ✓
- LRP



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Mode 5

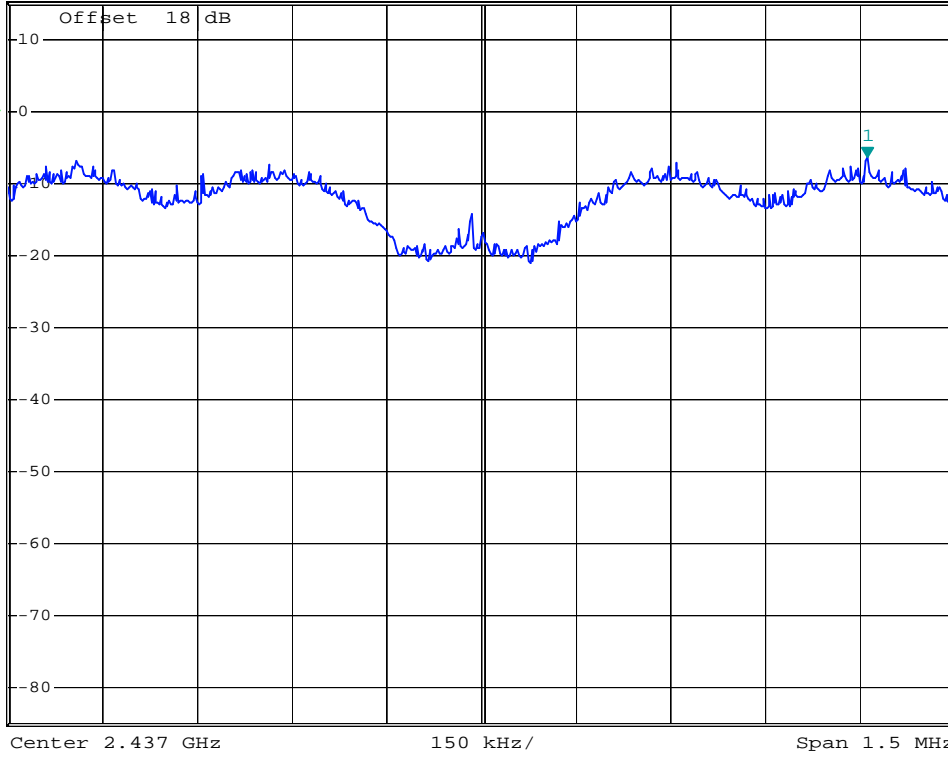


*RBW 3 kHz Marker 1 [T1]
*VBW 30 kHz -6.42 dBm
*SWT 500 s 2.437612000 GHz

Ref 15 dBm

*Att 20 dB

1 PK*
CLRWR



Date: 27.JUN.2006 05:53:30

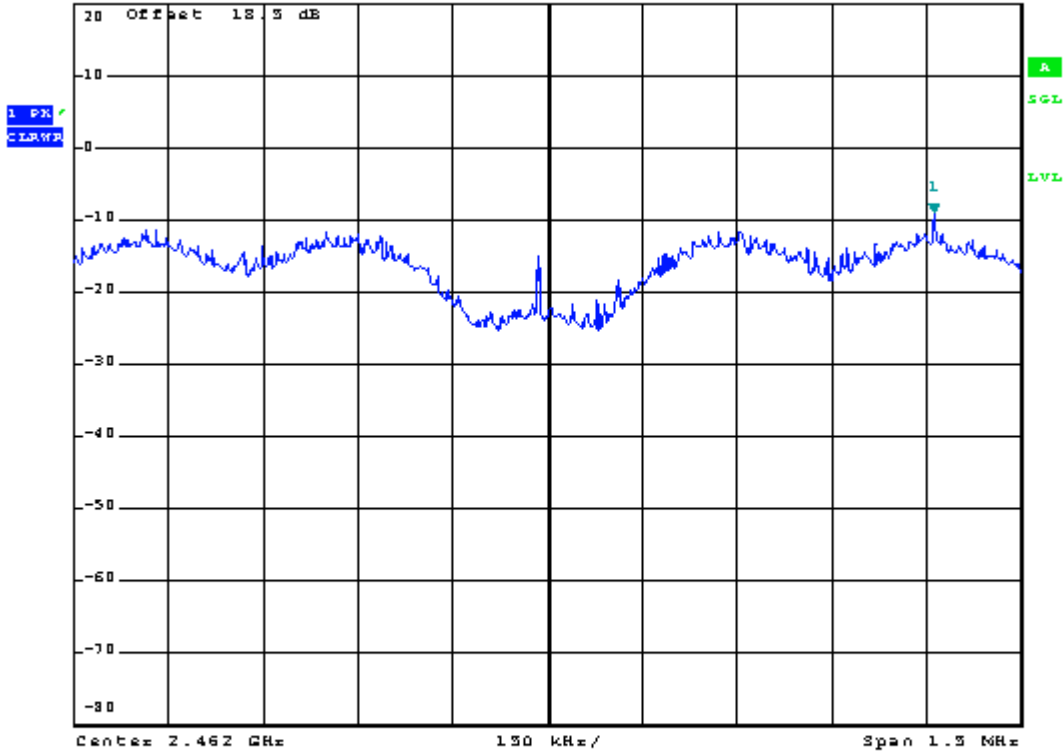


Mode 6



RBW 3 kHz Marker 1 [T1]
 VBW 30 kHz -8.93 dBm
 SWI 500 s 2.462612000 GHz

Ref 20 dBm Att 30 dB



Date: 21.JUN.2006 16:26:40



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.4.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52%
- Test Enginner : James

- Test Result in WLAN lower band (Channel 1) : PASS
- Test Result in WLAN higher band (Channel 11) : PASS

5.4.4 Note on Band Edge Emission :

➤WLAN 802.11b

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.00	57.82	-16.18	74.00	58.76	30.26	4.26	35.46	100	359	Peak
2385.00	47.21	-6.79	54.00	48.15	30.26	4.26	35.46	100	252	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	62.82	-11.18	74.00	63.76	30.26	4.26	35.46	100	360	Peak
2390.00	52.24	-1.76	54.00	53.18	30.26	4.26	35.46	100	26	Average



CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	53.75	-20.25	74.00	54.61	30.29	4.36	35.51	100	360	Peak
2483.50	48.64	-5.36	54.00	49.50	30.29	4.36	35.51	100	134	Average

CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	57.98	-16.02	74.00	58.84	30.29	4.36	35.51	100	360	Peak
2483.50	47.09	-6.91	54.00	47.95	30.29	4.36	35.51	100	42	Average

➤WLAN 802.11g

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	65.99	-8.01	74.00	66.93	30.26	4.26	35.46	100	0	Peak
2390.00	46.29	-7.71	54.00	47.23	30.26	4.26	35.46	100	131	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	69.50	-4.50	74.00	70.44	30.26	4.26	35.46	100	360	Peak
2390.00	53.49	-0.51	54.00	54.43	30.26	4.26	35.46	100	27	Average

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	56.53	-17.47	74.00	57.39	30.29	4.36	35.51	100	360	Peak
2483.50	41.40	-12.60	54.00	42.26	30.29	4.36	35.51	100	133	Average



CH11 (Vertical)

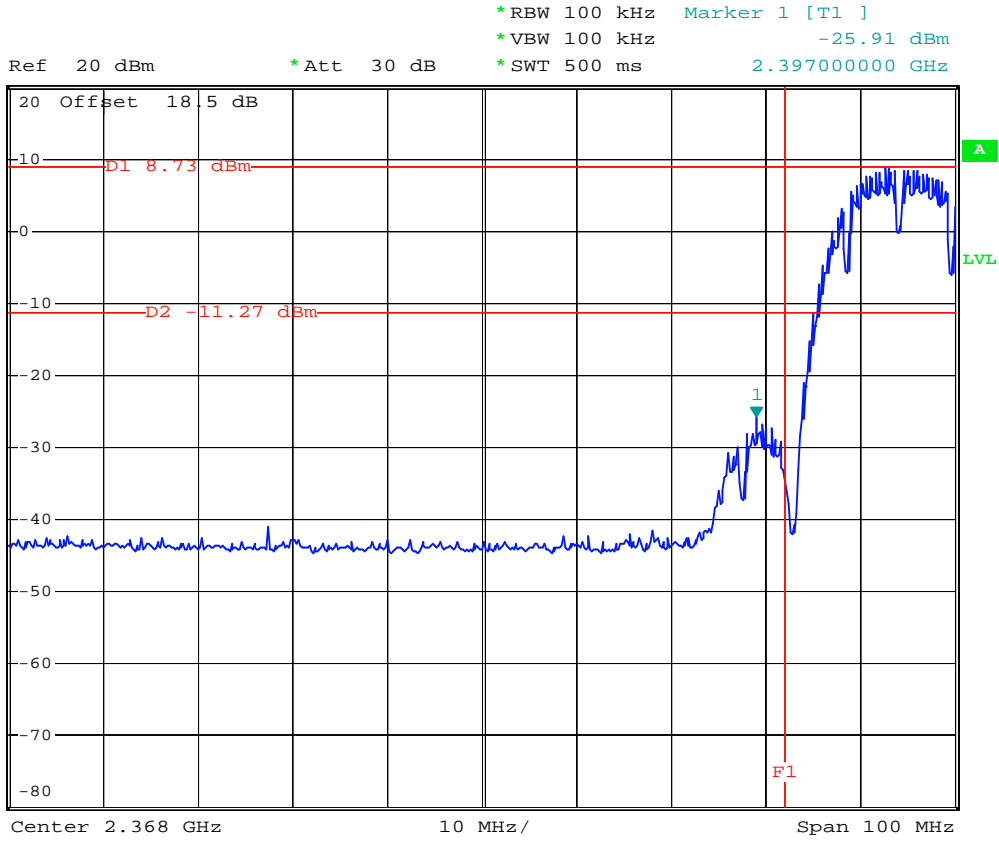
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	66.26	-7.74	74.00	67.12	30.29	4.36	35.51	100	0	Peak
2483.50	46.83	-7.17	54.00	47.69	30.29	4.36	35.51	100	44	Average



5.4.5 20dB Band Edge

WLAN 802.11b

CH01



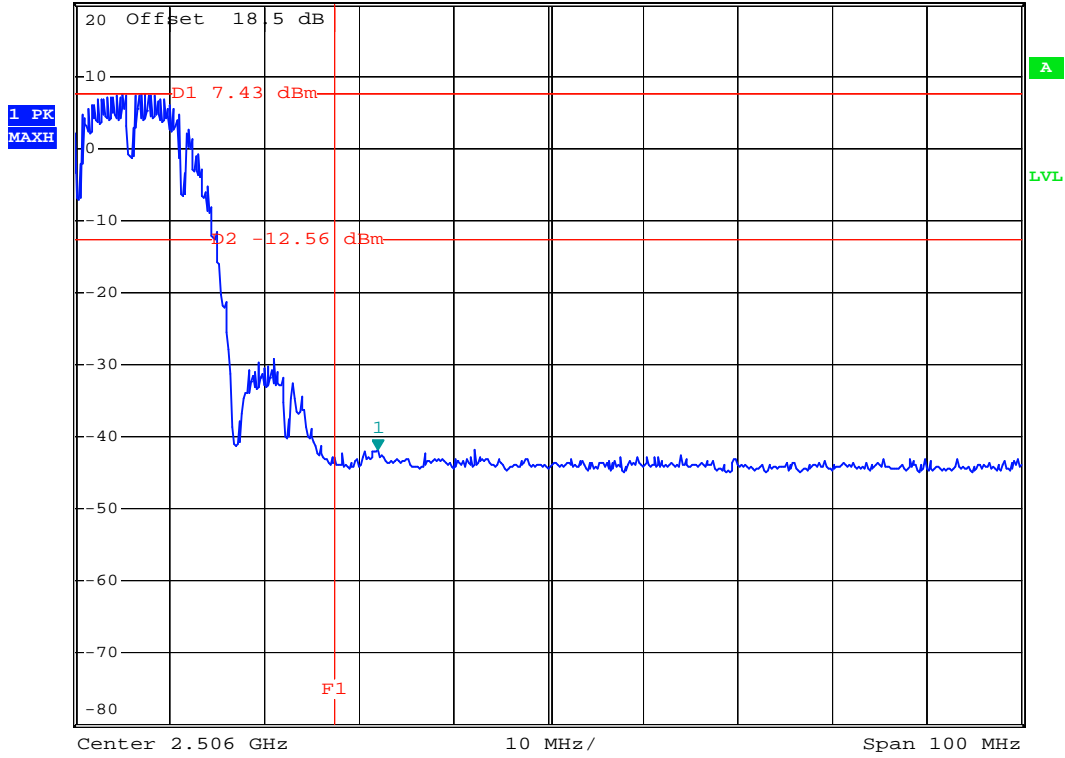
Date: 21.JUN.2006 13:57:26



CH11



Ref 20 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -41.93 dBm
*VBW 100 kHz *SWT 500 ms 2.488000000 GHz



Date: 21.JUN.2006 13:47:15

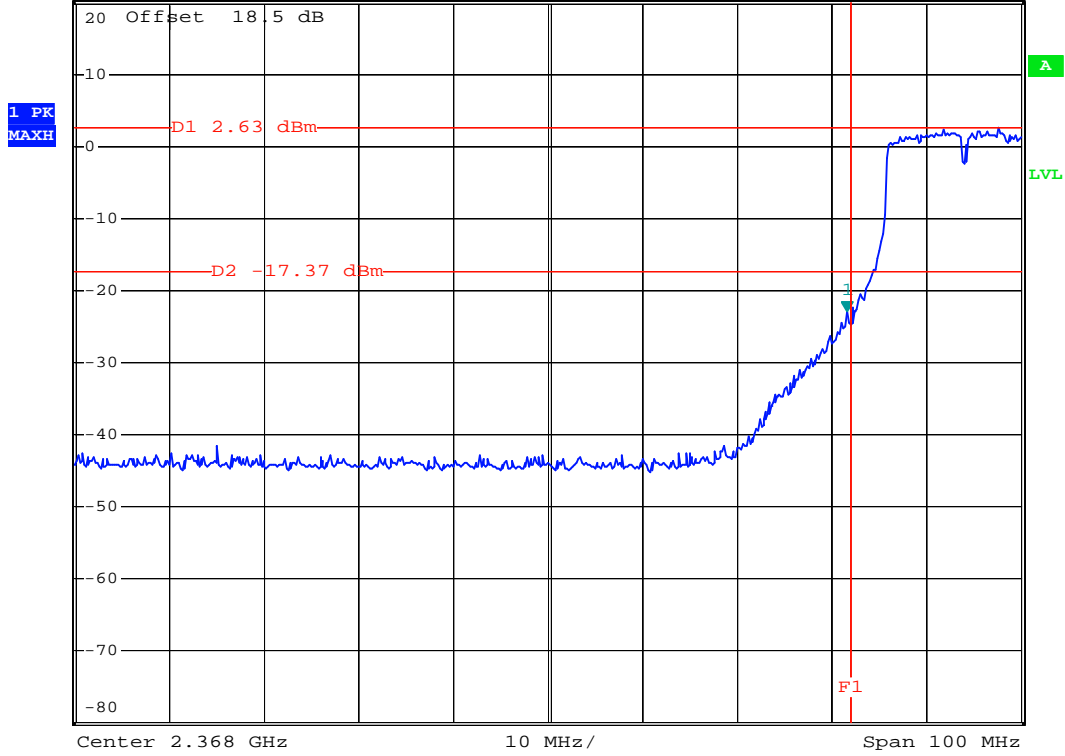


WLAN 802.11g

CH01



Ref 20 dBm *Att 30 dB *RBW 100 kHz Marker 1 [T1] -22.94 dBm
*VBW 100 kHz *SWT 500 ms 2.399600000 GHz



Date: 21.JUN.2006 14:21:29



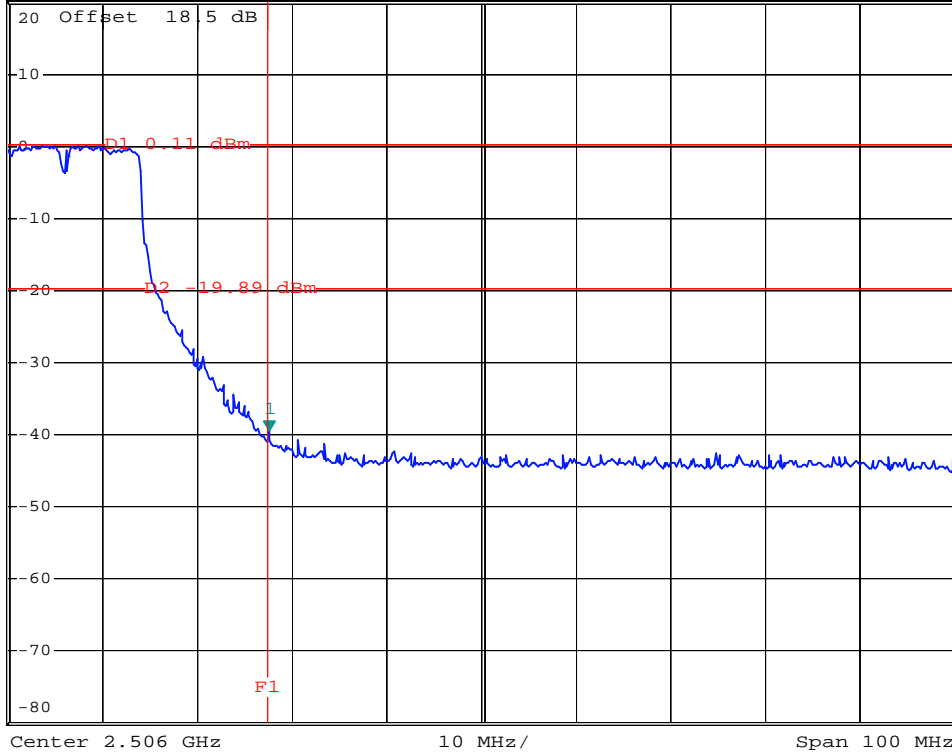
CH11



*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -39.35 dBm
*SWT 500 ms 2.483600000 GHz

Ref 20 dBm

*Att 30 dB



Date: 21.JUN.2006 14:19:41

5.5 Peak Output Power Measurement

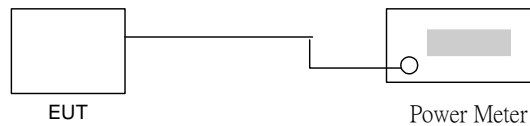
5.9.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.9.2 Test Procedure :

1. The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port(RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

5.9.3 Test Setup Layout :



5.9.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 24°C
- Relative Humidity : 52 %
- Test Enginner : James

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	21.03	1W/30 dBm
06	2437	20.39	1W/30 dBm
11	2462	18.88	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	22.61	1W/30 dBm
06	2437	24.89	1W/30 dBm
11	2462	20.56	1W/30 dBm



5.6 Conducted Emission

5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.10.2 Test Procedures :

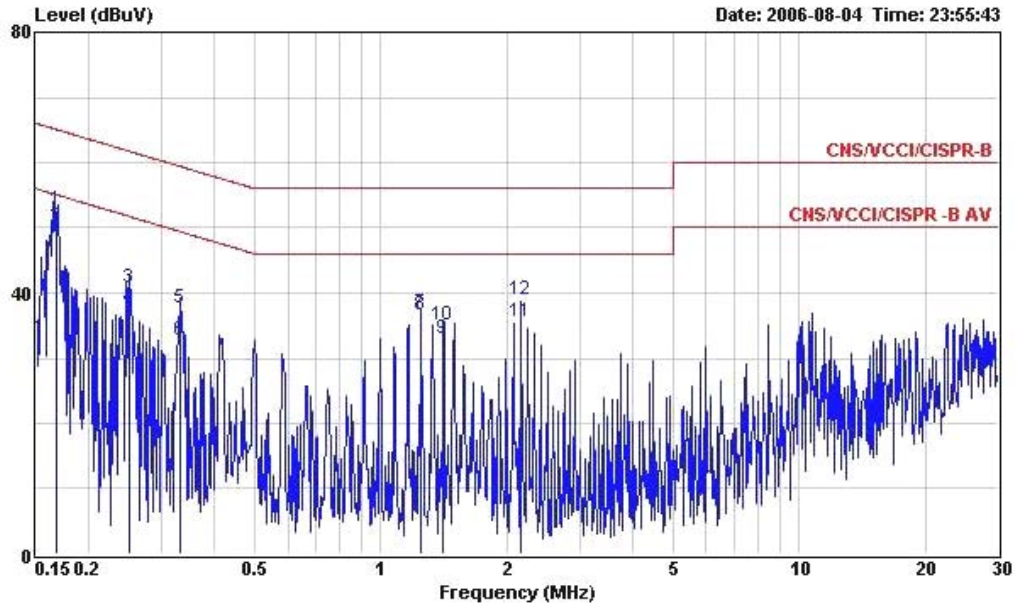
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.



5.10.3 Test Data

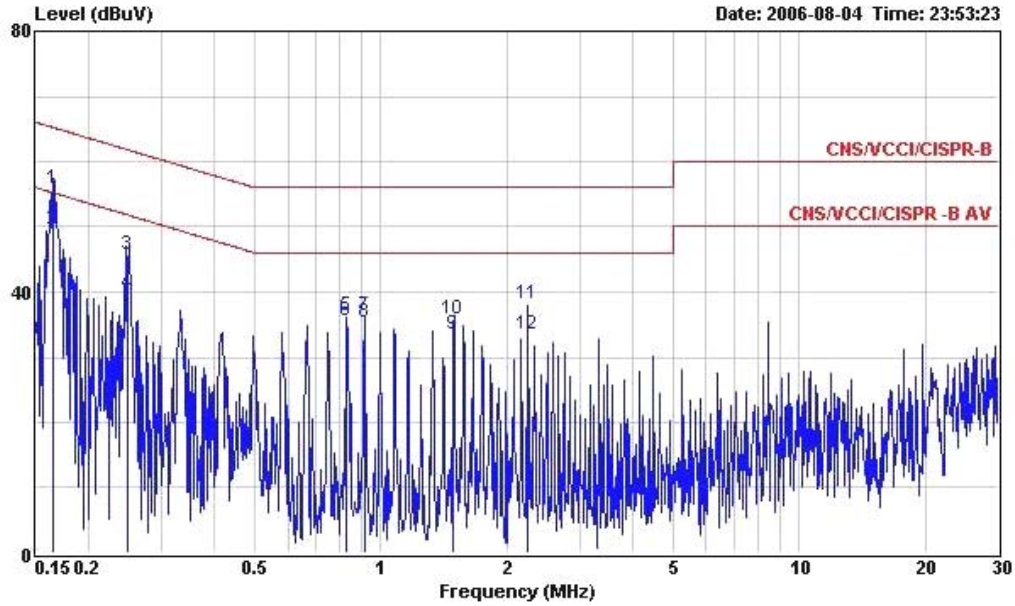
- Temperature : 24 °C
- Relating Humidity : 51 %
- Test Enginner : Louis
- Test Mode : Mode 1

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE
 EUT : WLAN Access Point
 Power : 120V/60Hz
 Model : FR661605-02
 Memo : 11g Tx CH06+Adaptor1
 ADAPTER MODEL :
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.167	52.76	-12.35	65.11	52.61	0.10	0.05	QP
2	0.167	50.23	-4.88	55.11	50.08	0.10	0.05	Average
3	0.251	40.73	-20.99	61.72	40.56	0.10	0.07	QP
4	0.251	37.64	-14.08	51.72	37.47	0.10	0.07	Average
5	0.330	37.60	-21.85	59.45	37.43	0.10	0.07	QP
6	0.330	32.79	-16.66	49.45	32.62	0.10	0.07	Average
7	1.245	36.82	-19.18	56.00	36.66	0.10	0.06	QP
8	1.245	36.67	-9.33	46.00	36.51	0.10	0.06	Average
9	1.410	33.00	-13.00	46.00	32.82	0.10	0.08	Average
10	1.410	34.95	-21.05	56.00	34.77	0.10	0.08	QP
11	2.157	35.67	-10.33	46.00	35.44	0.11	0.12	Average
12	2.157	38.85	-17.15	56.00	38.62	0.11	0.12	QP



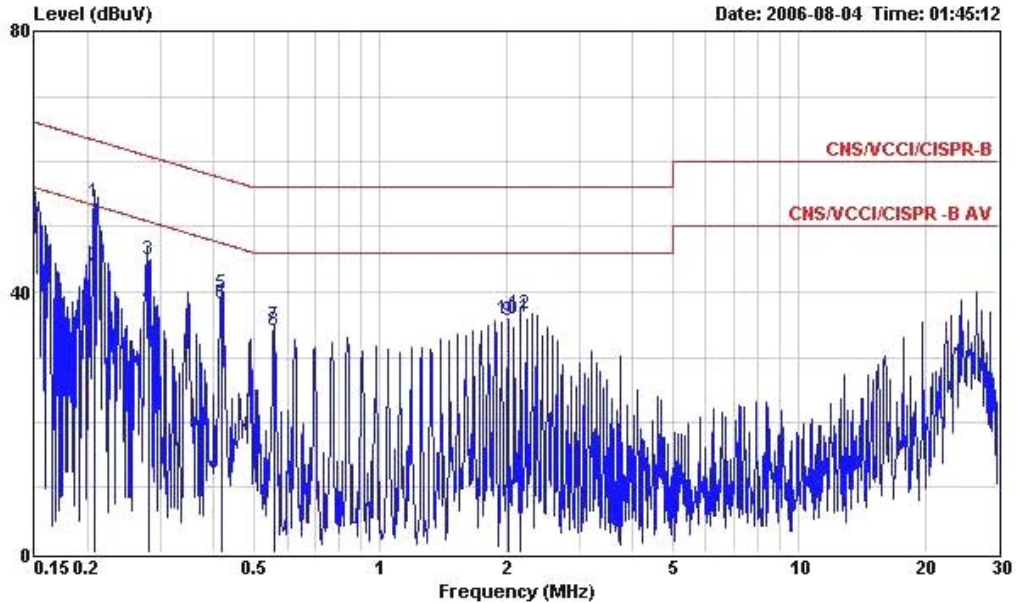
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : WLAN Access Point
 Power : 120V/60Hz
 Model : FR661605-02
 Memo : 11g Tx CH06+Adaptor1
 ADAPTER MODEL :
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.165	55.85	-9.36	65.21	55.70	0.10	0.05	QP
2	0.165	49.58	-5.63	55.21	49.43	0.10	0.05	Average
3	0.249	45.62	-16.17	61.79	45.45	0.10	0.07	QP
4	0.249	39.62	-12.17	51.79	39.45	0.10	0.07	Average
5	0.830	36.37	-19.63	56.00	36.22	0.10	0.05	QP
6	0.830	35.55	-10.45	46.00	35.40	0.10	0.05	Average
7	0.914	36.26	-19.74	56.00	36.12	0.10	0.04	QP
8	0.914	35.44	-10.56	46.00	35.30	0.10	0.04	Average
9	1.494	33.53	-12.47	46.00	33.34	0.10	0.09	Average
10	1.494	35.89	-20.11	56.00	35.70	0.10	0.09	QP
11	2.242	38.20	-17.80	56.00	37.98	0.10	0.12	QP
12	2.242	33.54	-12.46	46.00	33.32	0.10	0.12	Average



- Temperature : 24 °C
- Relating Humidity : 51 %
- Test Enginner : Louis
- Test Mode : Mode 2

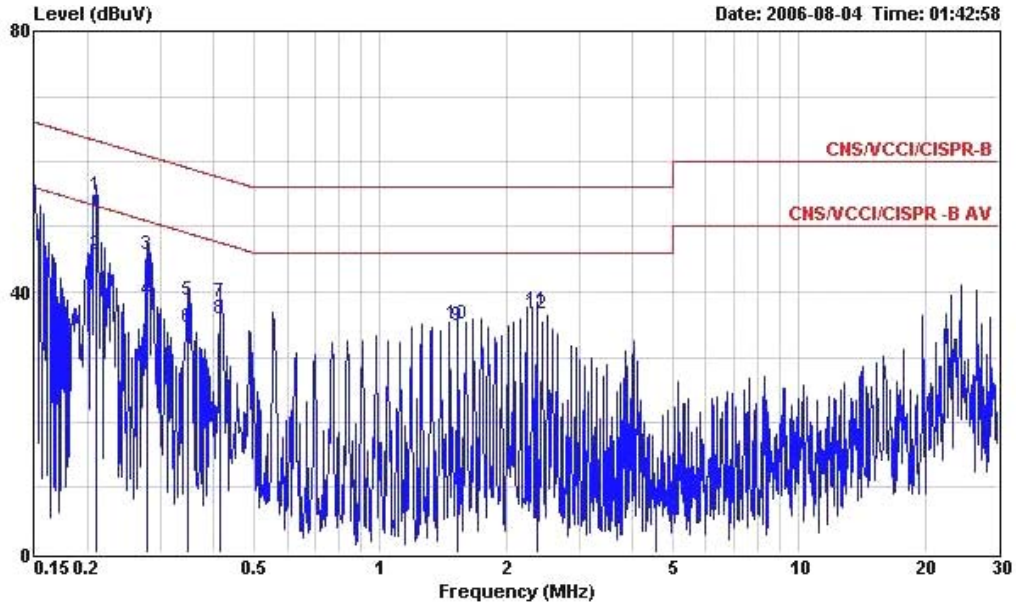
■ The test that passed at minimum margin was marked by the frame in the following table.



```

Site          : CO01-HY
Condition     : CNS/VCCI/CISPR-B 2001/004 200604 LINE
EUT          : WLAN Access Point
Power        : 120V/60Hz
Model       : FR661605-02
Memo        : 11g Tx CH06+Adaptor2
ADAPTER MODEL :
Memo
  
```

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.208	53.79	-9.49	63.28	53.63	0.10	0.06	QP
2	0.208	43.86	-9.42	53.28	43.70	0.10	0.06	Average
3	0.279	44.82	-16.03	60.85	44.65	0.10	0.07	QP
4	0.279	38.02	-12.83	50.85	37.85	0.10	0.07	Average
5	0.417	39.86	-17.65	57.51	39.68	0.10	0.08	QP
6	0.417	38.06	-9.45	47.51	37.88	0.10	0.08	Average
7	0.558	34.70	-21.30	56.00	34.53	0.10	0.07	QP
8	0.558	34.11	-11.89	46.00	33.94	0.10	0.07	Average
9	2.020	35.52	-10.48	46.00	35.30	0.10	0.12	Average
10	2.020	35.91	-20.09	56.00	35.69	0.10	0.12	QP
11	2.159	36.20	-9.80	46.00	35.97	0.11	0.12	Average
12	2.159	36.65	-19.35	56.00	36.42	0.11	0.12	QP



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : WLAN Access Point
 Power : 120V/60Hz
 Model : FR661605-02
 Memo : 11g Tx CH06+Adaptor2
 ADAPTER MODEL :
 Memo :

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.209	54.85	-8.39	63.24	54.69	0.10	0.06	QP
2	0.209	45.68	-7.56	53.24	45.52	0.10	0.06	Average
3	0.277	45.60	-15.31	60.91	45.43	0.10	0.07	QP
4	0.277	38.69	-12.22	50.91	38.52	0.10	0.07	Average
5	0.347	38.73	-20.32	59.05	38.55	0.10	0.08	QP
6	0.347	34.42	-14.63	49.05	34.24	0.10	0.08	Average
7	0.415	38.56	-18.99	57.55	38.38	0.10	0.08	QP
8	0.415	35.97	-11.58	47.55	35.79	0.10	0.08	Average
9	1.532	34.80	-11.20	46.00	34.61	0.10	0.09	Average
10	1.532	35.09	-20.91	56.00	34.90	0.10	0.09	QP
11	2.369	37.09	-18.91	56.00	36.87	0.10	0.12	QP
12	2.369	36.60	-9.40	46.00	36.38	0.10	0.12	Average



5.7 Radiated Emission Measurement

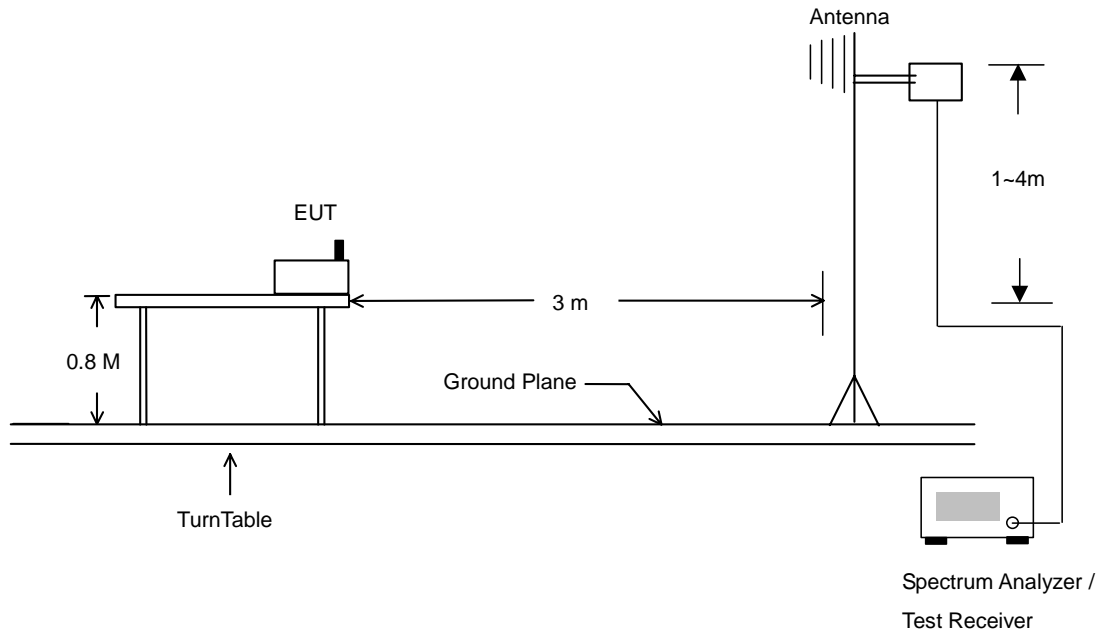
5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

5.11.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.11.3 Typical Test Setup Layout of Radiated Emission

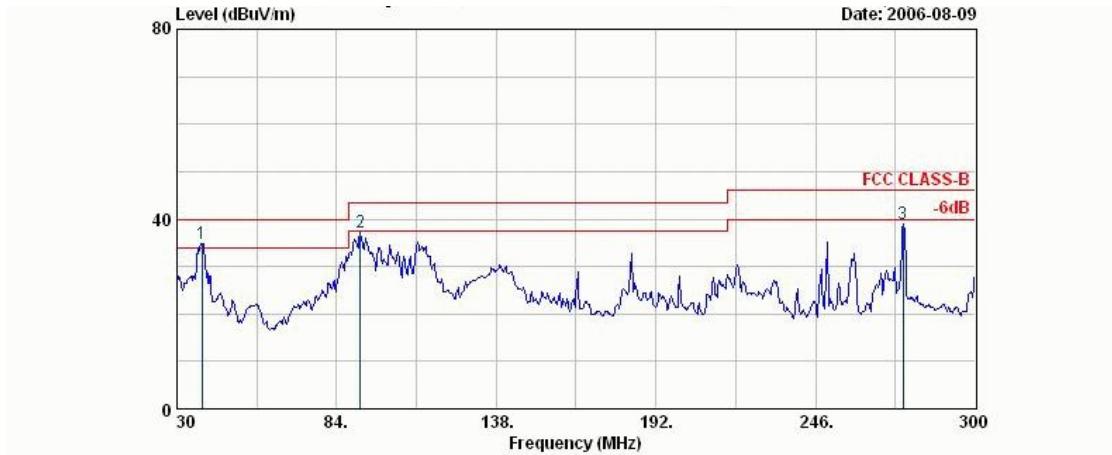




5.11.4 Test Data

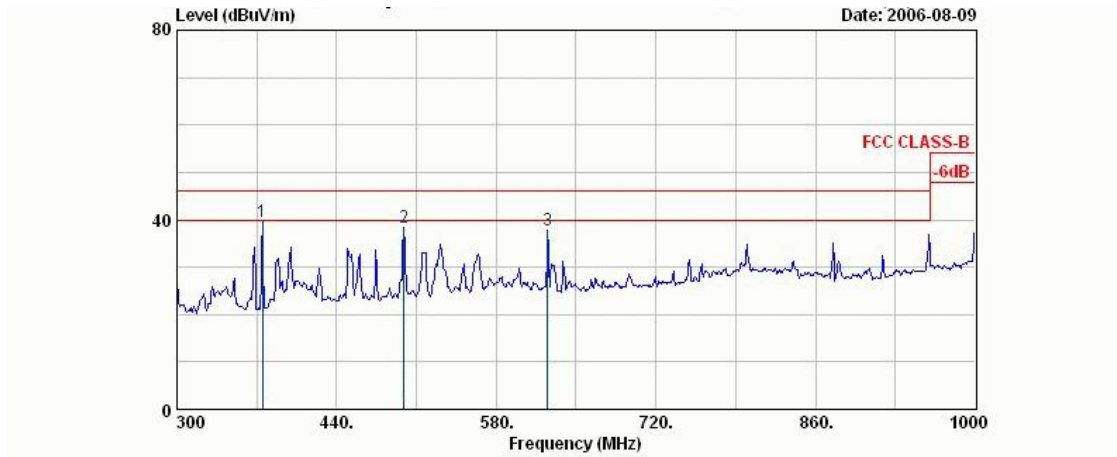
- Temperature : 25°C
- Relating Humidity : 58%
- Test Enginner : Andy
- Test Mode : Mode 1
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.



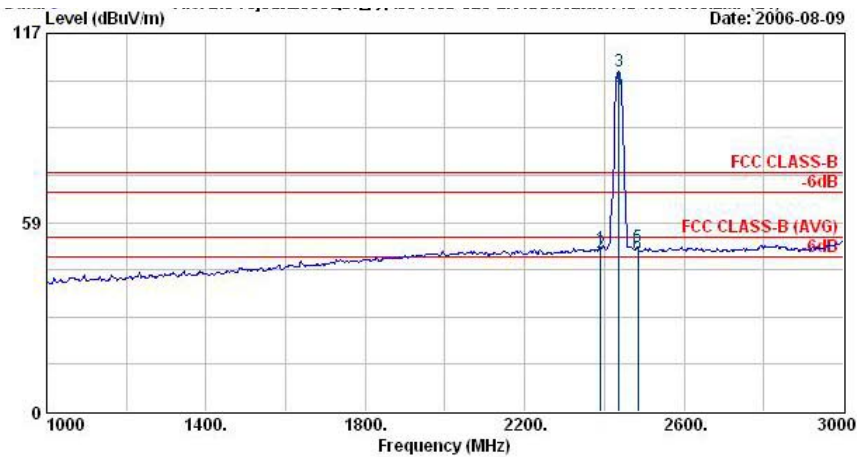
Site : 03CH06-HY
 Condition : BI-LOG-2004-1122 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	38.37	34.90	-5.10	40.00	47.05	15.28	1.23	28.66	156	302	Peak
2	92.10	37.26	-6.24	43.50	55.08	9.32	1.68	28.82	400	0	Peak
3	275.70	38.90	-7.10	46.00	51.91	12.92	3.02	28.94	400	0	Peak



Site : 03CH06-HY
 Condition : BI-LOG-2004-1122 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

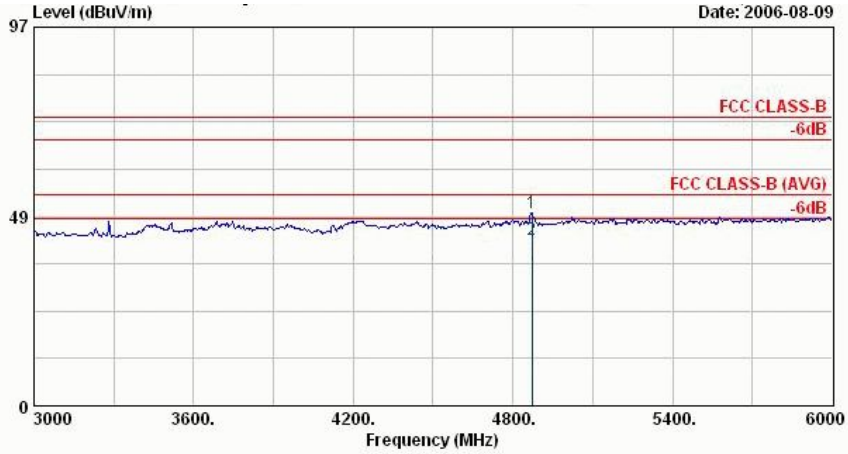
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	Remark
1	374.90	39.63	-6.37	46.00	49.87	15.16	3.67	29.07	100	0 Peak
2	498.80	38.51	-7.49	46.00	46.05	17.10	4.18	28.82	100	0 Peak
3	624.80	37.89	-8.11	46.00	43.91	18.21	4.74	28.96	100	0 Peak



Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

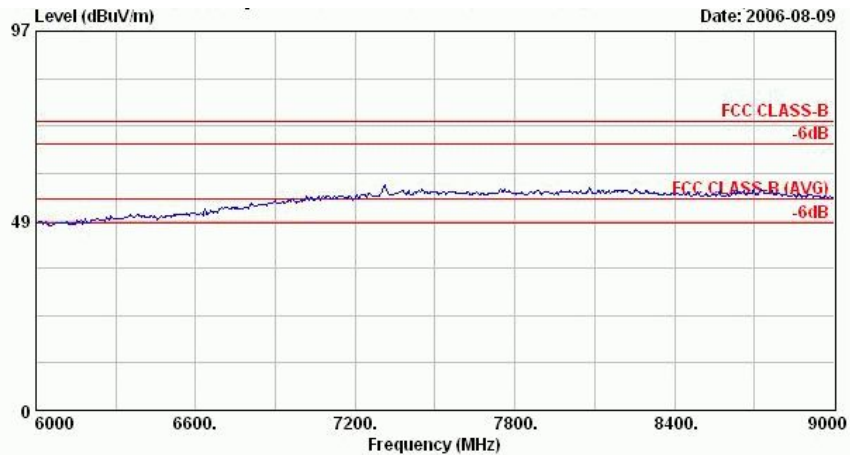
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	Remark
1	2390.00	50.35	-23.65	74.00	51.28	30.26	4.26	35.46	100	0 Peak
2 @	2390.00	48.99	-5.01	54.00	49.89	30.28	4.29	35.47	106	3 Average
3 @	2437.00	105.19			106.10	30.27	4.29	35.47	100	0 Peak
4 @	2437.00	99.50			100.40	30.28	4.29	35.47	106	3 Average
5	2484.00	50.98	-23.02	74.00	51.84	30.29	4.36	35.51	100	0 Peak
6	2484.00	48.87	-5.13	54.00	49.73	30.29	4.36	35.51	106	3 Average

Remark: #3 and #4 Fundamental Signal

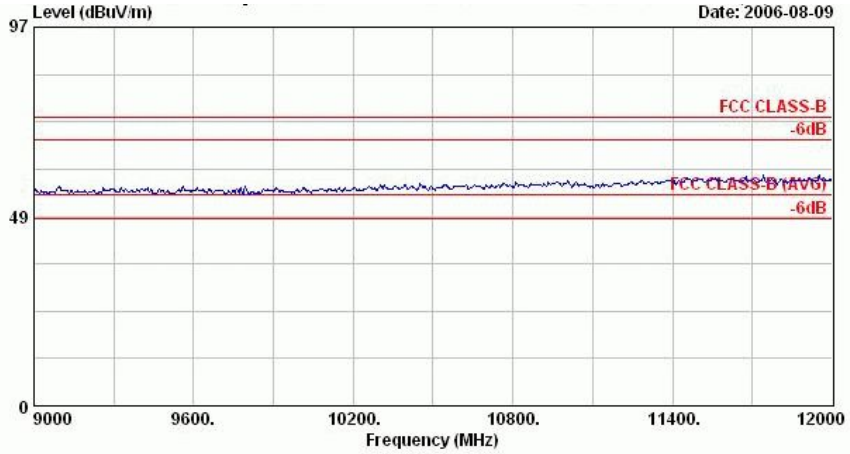


Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

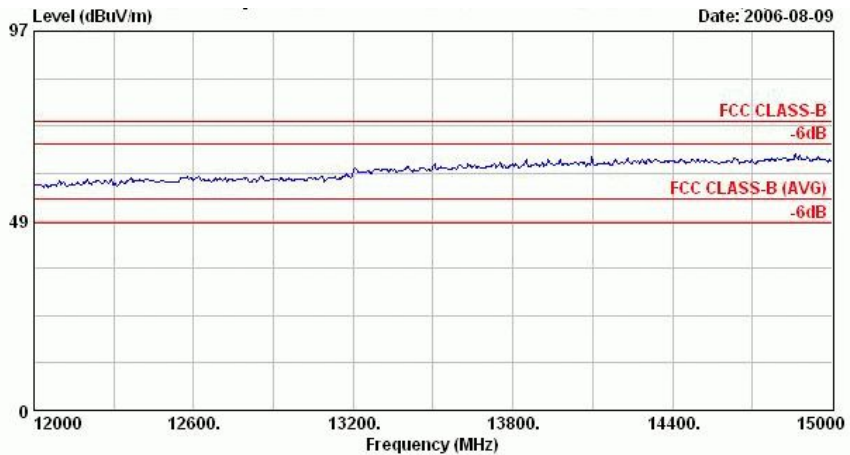
	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	4872.00	49.56	-24.44	74.00	46.28	33.14	6.30	36.16	200	0 Peak
2	4872.00	42.57	-11.43	54.00	39.29	33.14	6.30	36.16	200	38 Average



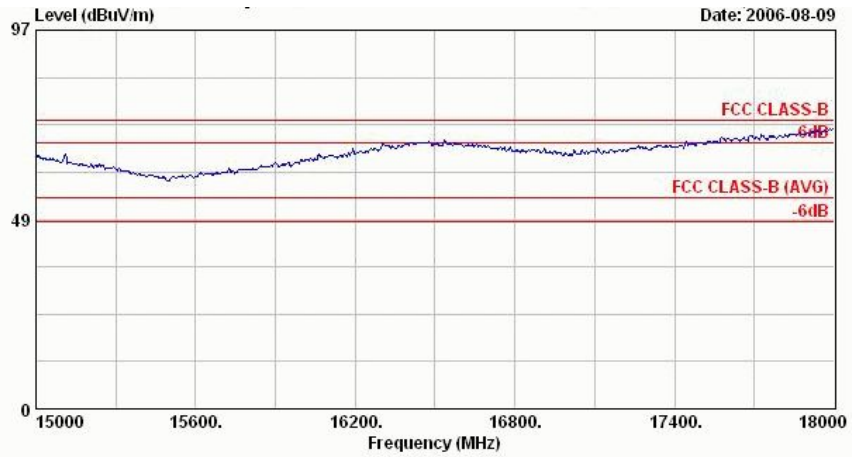
Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19



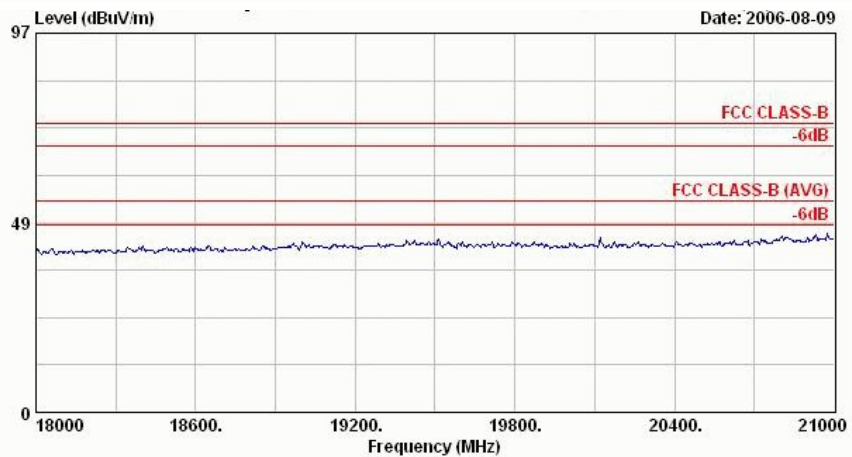
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



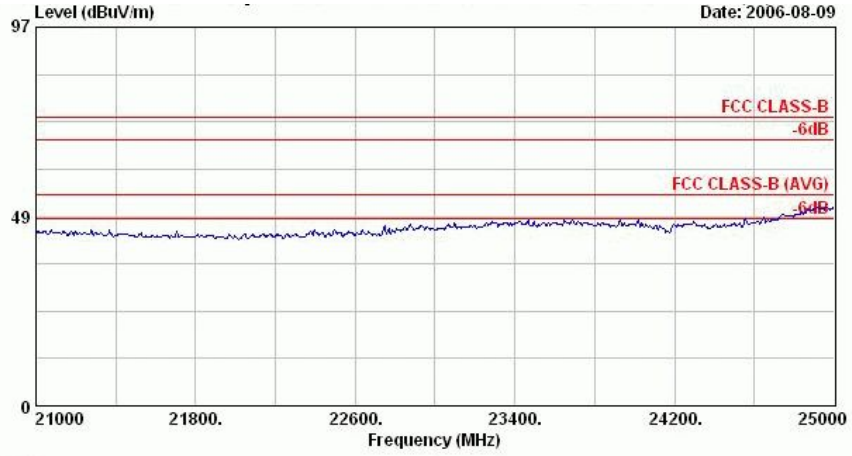
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19

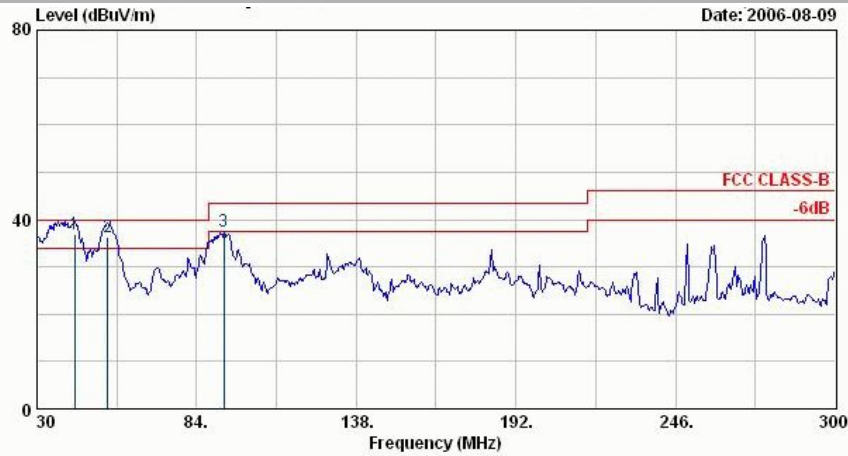


Site : 03CH06-HY
Condition : SHF-EHF HORN HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



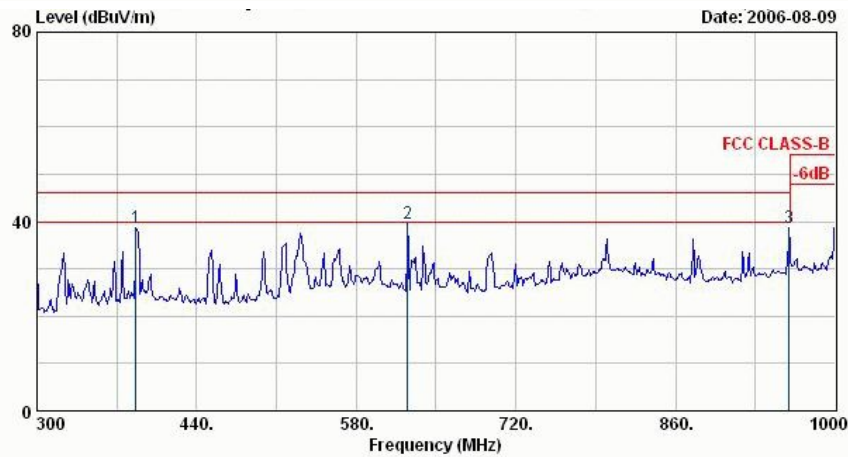
▪ Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.



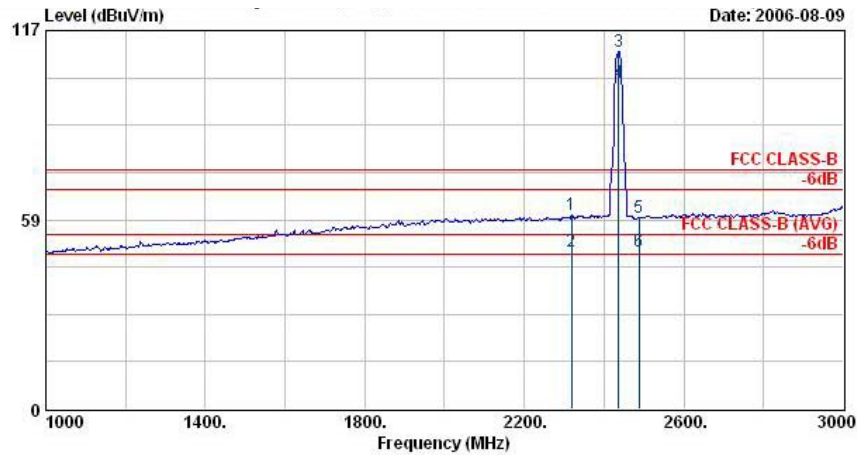
Site : 03CH06-HY
 Condition : BI-LOG-2004-1122 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

	Freq MHz	Level dBuV/m	Over Limit dB	Limit Line dBuV/m	ReadAntenna Level dBuV	Antenna Factor dB/m	Cable Loss dB	Preamp Factor dB	Ant Pos cm	Table Pos deg	Remark
1 @	42.69	36.81	-3.19	40.00	51.10	13.19	1.16	28.64	100	156	QP
2 @	54.03	36.14	-3.86	40.00	55.10	8.53	1.14	28.63	133	154	QP
3 !	93.18	37.55	-5.95	43.50	55.24	9.47	1.67	28.82	400	0	Peak



Site : 03CH06-HY
 Condition : BI-LOG-2004-1122 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

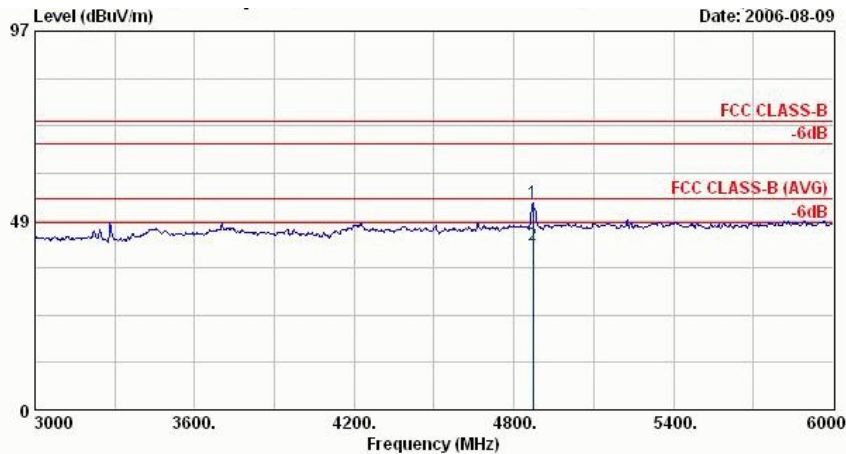
	Freq MHz	Level dBuV/m	Over Limit dB	Limit Line dBuV/m	ReadAntenna Level dBuV	Antenna Factor dB/m	Cable Loss dB	Preamp Factor dB	Ant Pos cm	Table Pos deg	Remark
1	386.80	38.54	-7.46	46.00	48.46	15.50	3.68	29.10	100	0	Peak
2	624.80	39.59	-6.41	46.00	45.61	18.21	4.74	28.96	100	0	Peak
3	959.40	38.52	-7.48	46.00	39.60	21.73	6.05	28.87	100	0	Peak



Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

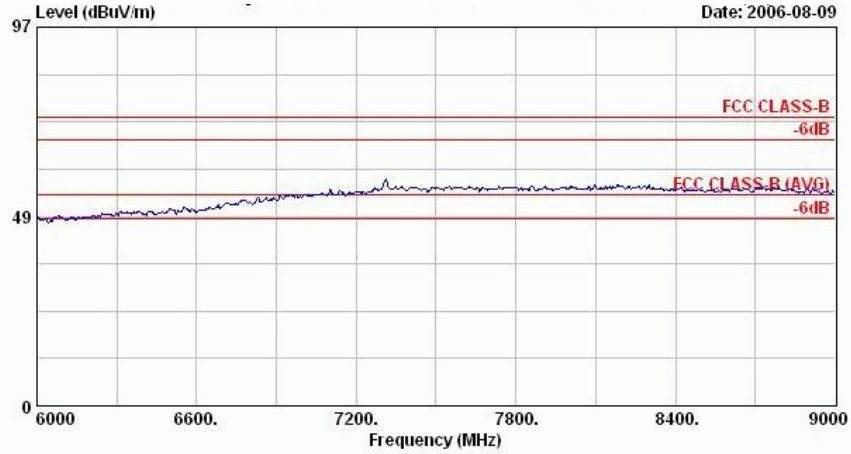
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2318.00	60.14	-13.86	74.00	61.15	30.23	4.17	35.40	100	360	Peak
2 !	2318.00	48.76	-5.24	54.00	49.76	30.23	4.17	35.40	100	52	Average
3 @	2437.00	110.50			111.41	30.27	4.29	35.47	100	360	Peak
4 @	2437.00	101.10			102.00	30.28	4.29	35.47	100	52	Average
5	2488.00	59.32	-14.68	74.00	60.18	30.30	4.36	35.51	100	360	Peak
6 @	2488.00	48.91	-5.09	54.00	49.76	30.30	4.36	35.51	100	52	Average

Remark: #3 and #4 Fundamental Signal

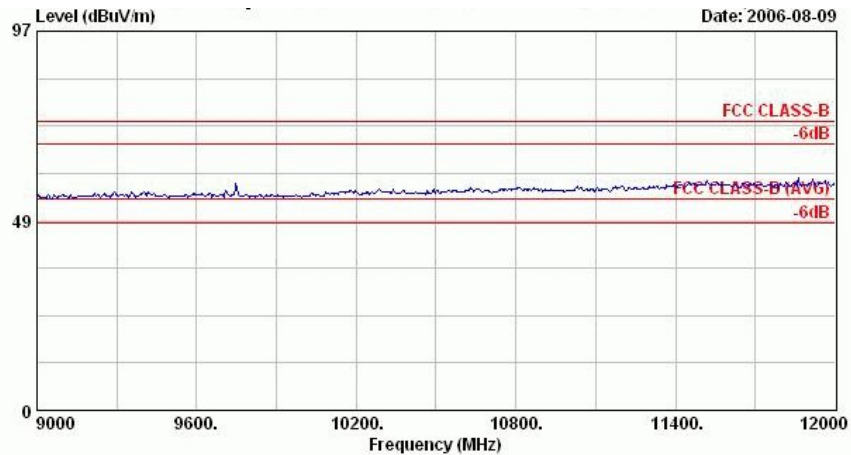


Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 1
 Power : 19

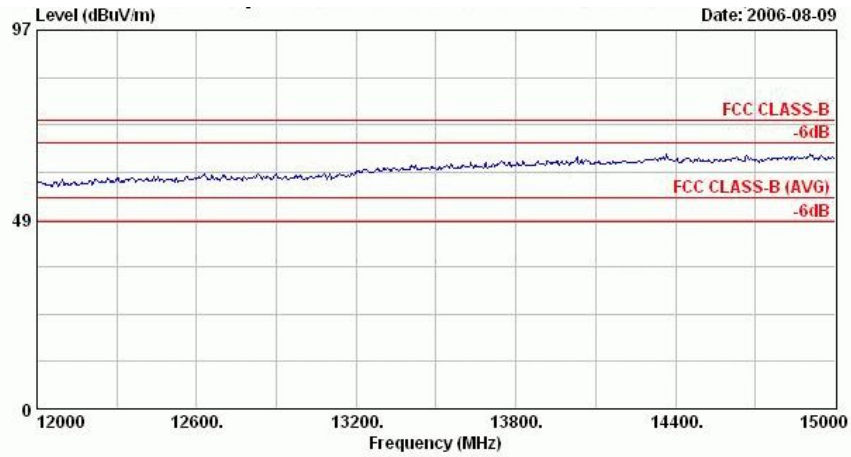
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4872.00	53.00	-21.00	74.00	49.72	33.14	6.30	36.16	200	360	Peak
2	4872.00	42.28	-11.72	54.00	39.00	33.14	6.30	36.16	100	31	Average



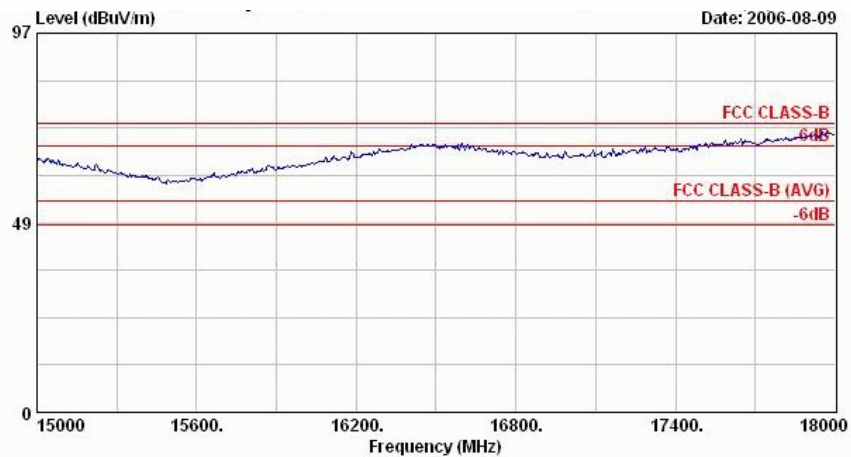
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



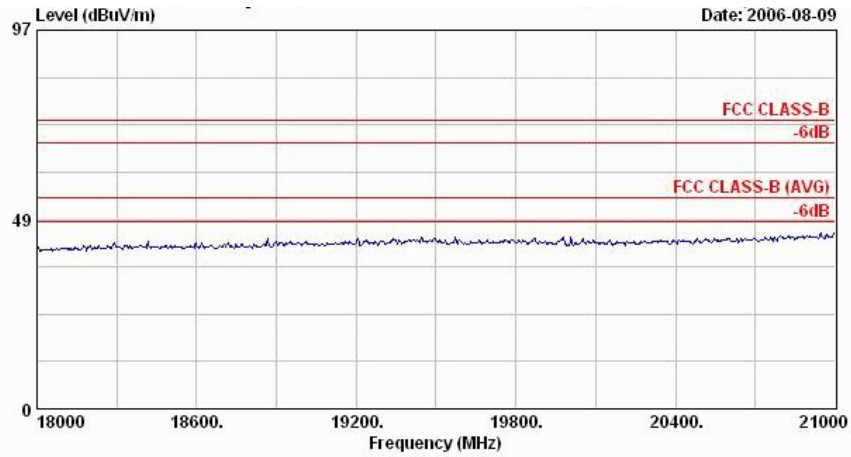
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



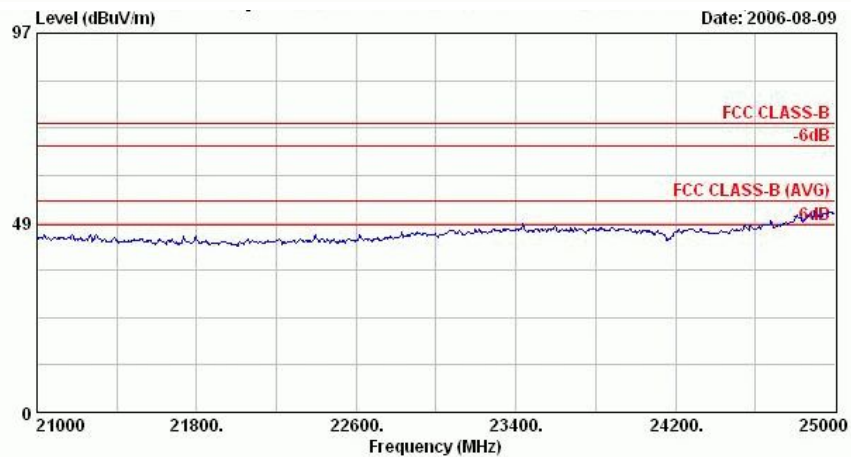
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



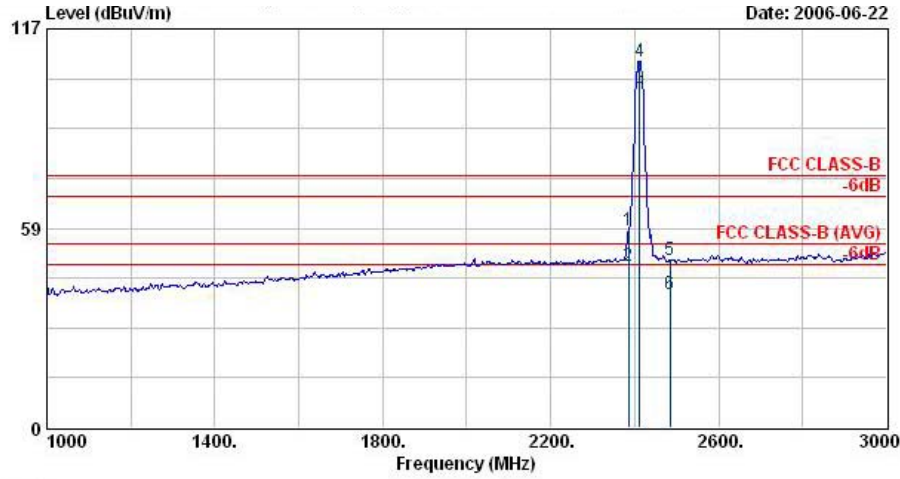
Site : 03CH06-HY
Condition : SHF-EHF HORN VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx_CH06,2437MHz+Adaptor 1
Power : 19



Temperature : 25°C

- Relating Humidity : 58%
- Test Enginner : Andy
- Test Mode : Mode 2
- Polarization : Horizontal

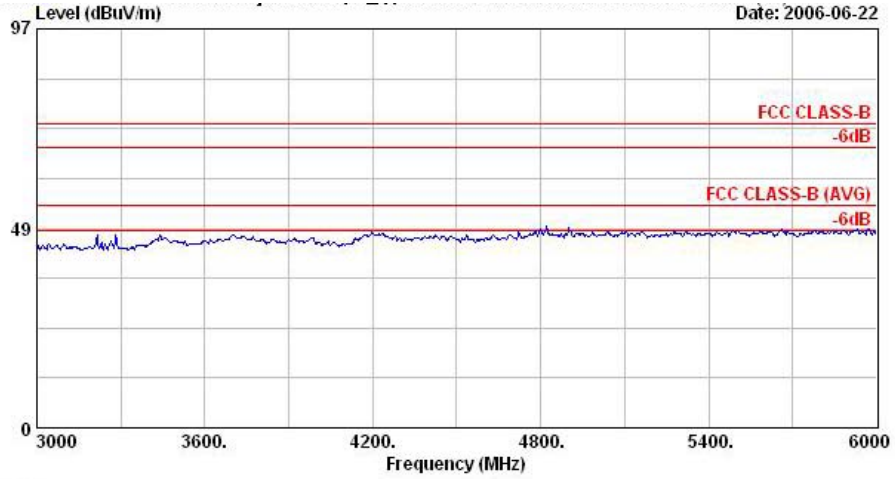
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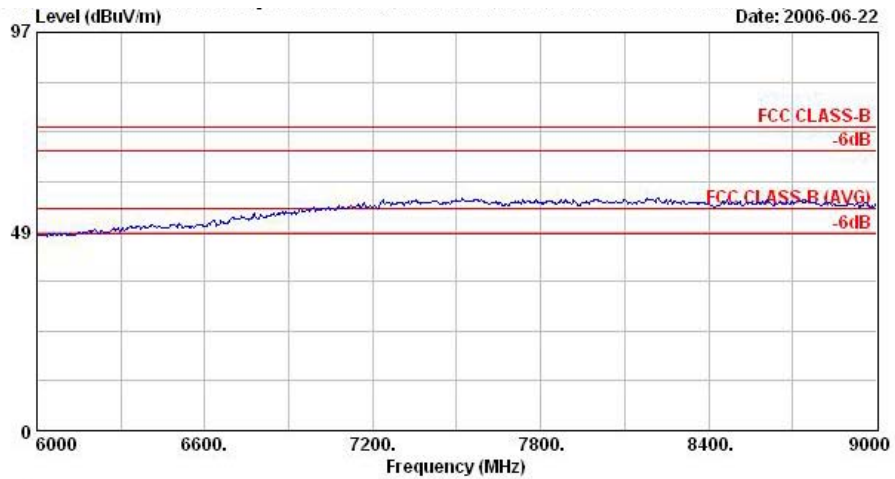
Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx CH01, 2412MHz+Adapter 2
 Power : 19

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2385.00	57.82	-16.18	74.00	58.76	30.26	4.26	35.46	100	359	Peak
2 @	2385.00	47.21	-6.79	54.00	48.15	30.26	4.26	35.46	100	252	Average
3 @	2412.00	99.77			100.70	30.27	4.26	35.46	100	252	Average
4 @	2412.00	107.29			108.22	30.27	4.26	35.46	100	359	Peak
5 @	2483.50	49.17	-24.83	74.00	50.03	30.29	4.36	35.51	100	359	Peak
6 @	2483.50	39.36	-14.64	54.00	40.22	30.29	4.36	35.51	100	252	Average

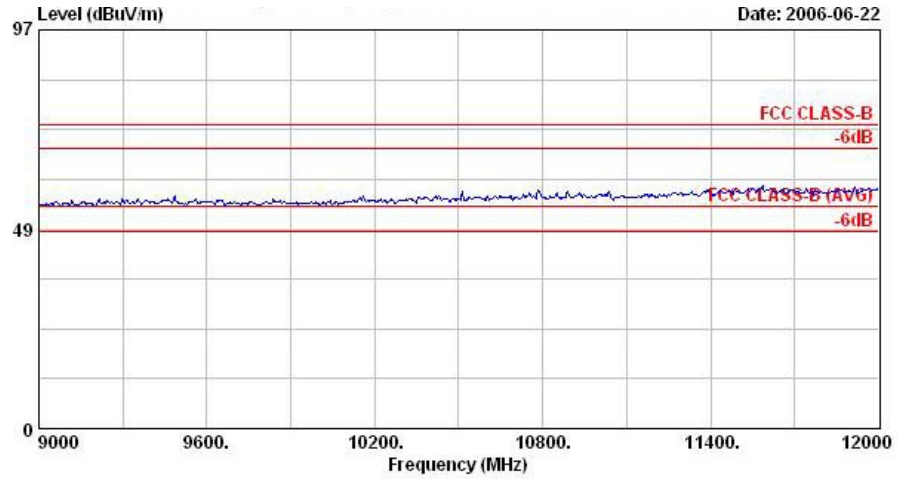
Remark: #3 and #4 Fundamental Signal



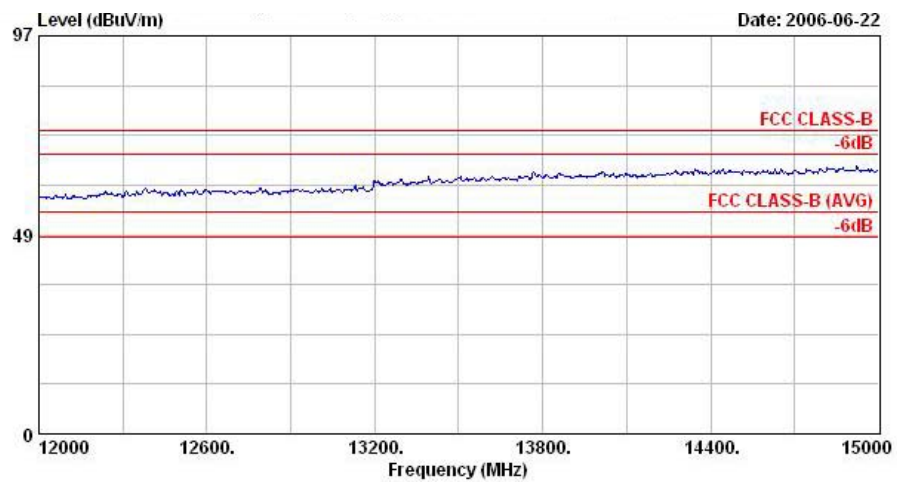
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



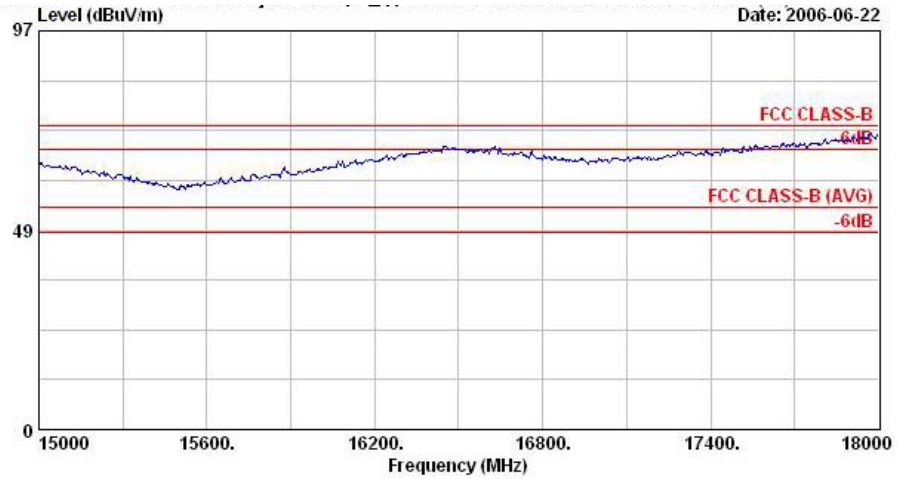
Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19

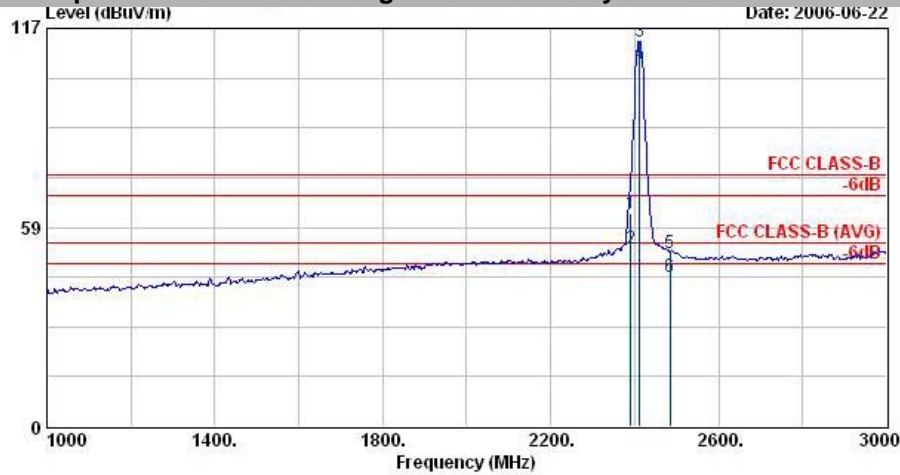


Site : 03CH06-HY
Condition : HF-ANT-060410 HORIZONTAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



• Polarization : Vertical

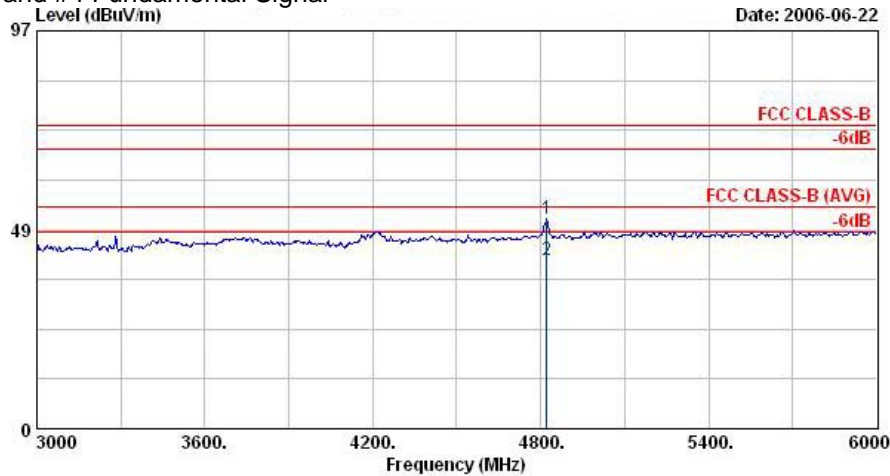
■ The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx CH01, 2412MHz+Adapter 2
 Power : 19

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1 @	2390.00	62.82	-11.18	74.00	63.76	30.26	4.26	35.46	100	360	Peak
2 @	2390.00	52.24	-1.76	54.00	53.18	30.26	4.26	35.46	100	26	Average
3 @	2412.00	113.26			114.19	30.27	4.26	35.46	100	360	Peak
4 @	2412.00	106.57			107.50	30.27	4.26	35.46	100	26	Average
5 @	2483.50	51.09	-22.91	74.00	51.95	30.29	4.36	35.51	100	360	Peak
6 @	2483.50	44.00	-10.00	54.00	44.86	30.29	4.36	35.51	100	26	Average

Remark: #3 and #4 Fundamental Signal



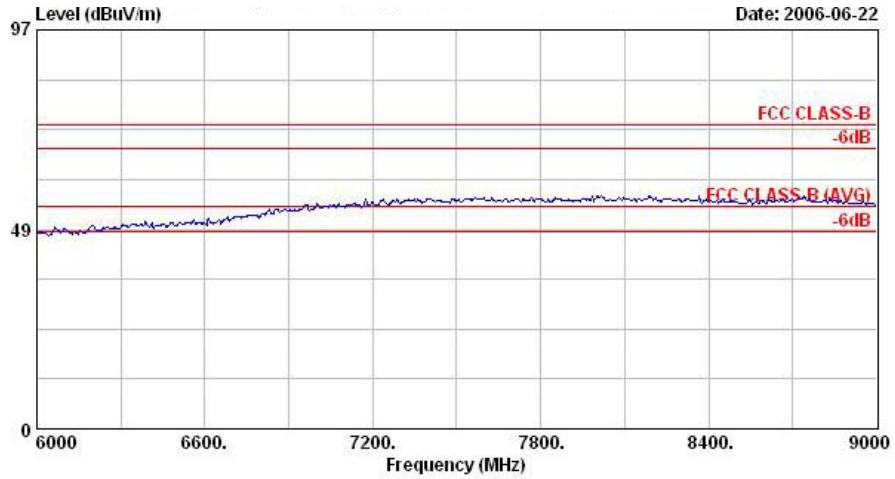
Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx CH01, 2412MHz+Adapter 2
 Power : 19

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1 @	4821.00	51.19	-22.81	74.00	48.12	32.94	6.24	36.12	200	360	Peak
2 @	4821.00	41.26	-12.74	54.00	38.19	32.94	6.24	36.12	125	161	Average

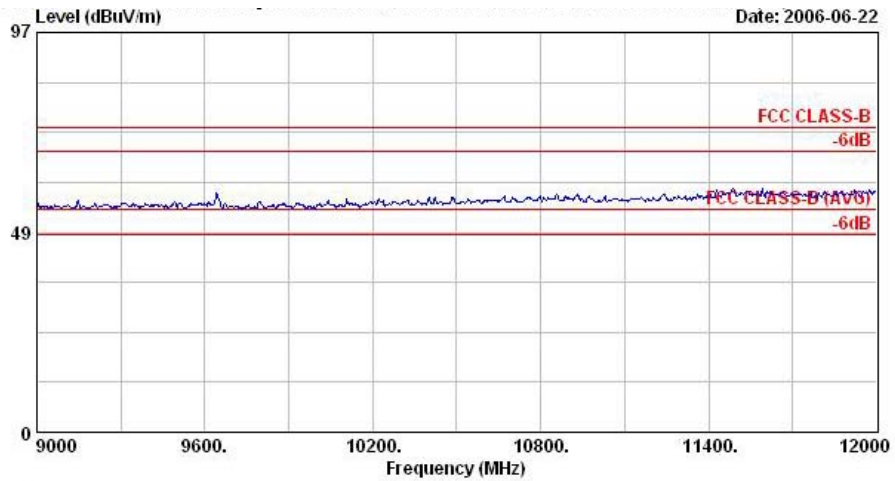


FCC TEST REPORT

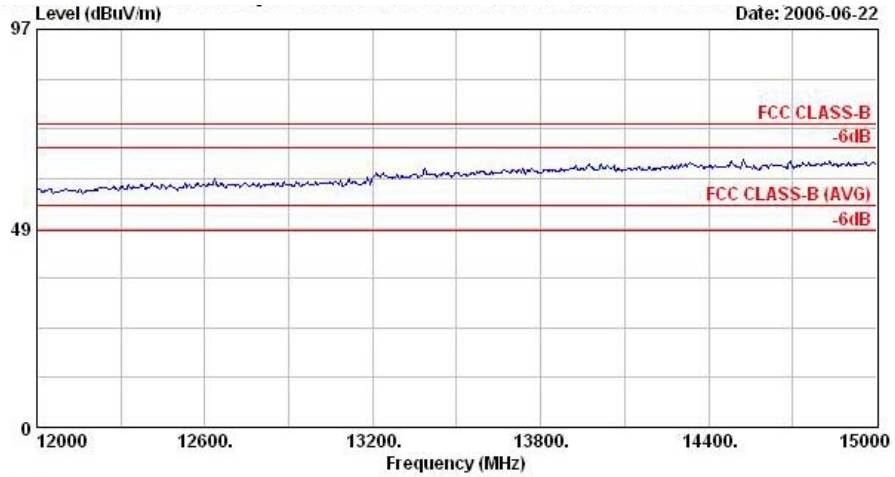
Report No. : FR661605-02



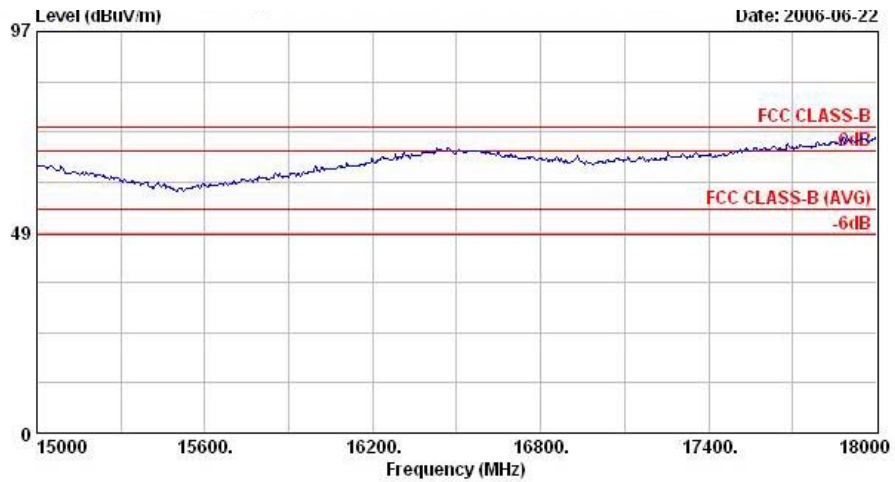
Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19

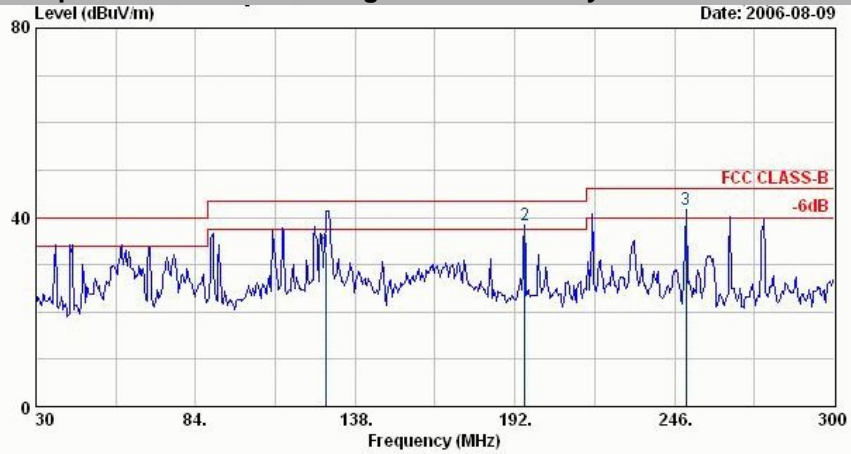


Site : 03CH06-HY
Condition : HF-ANT-060410 VERTICAL
EUT : WLAN Access Point
Power : 120Vac/60Hz
Model : FR 661605-02
Memo : 11b Tx CH01, 2412MHz+Adapter 2
Power : 19



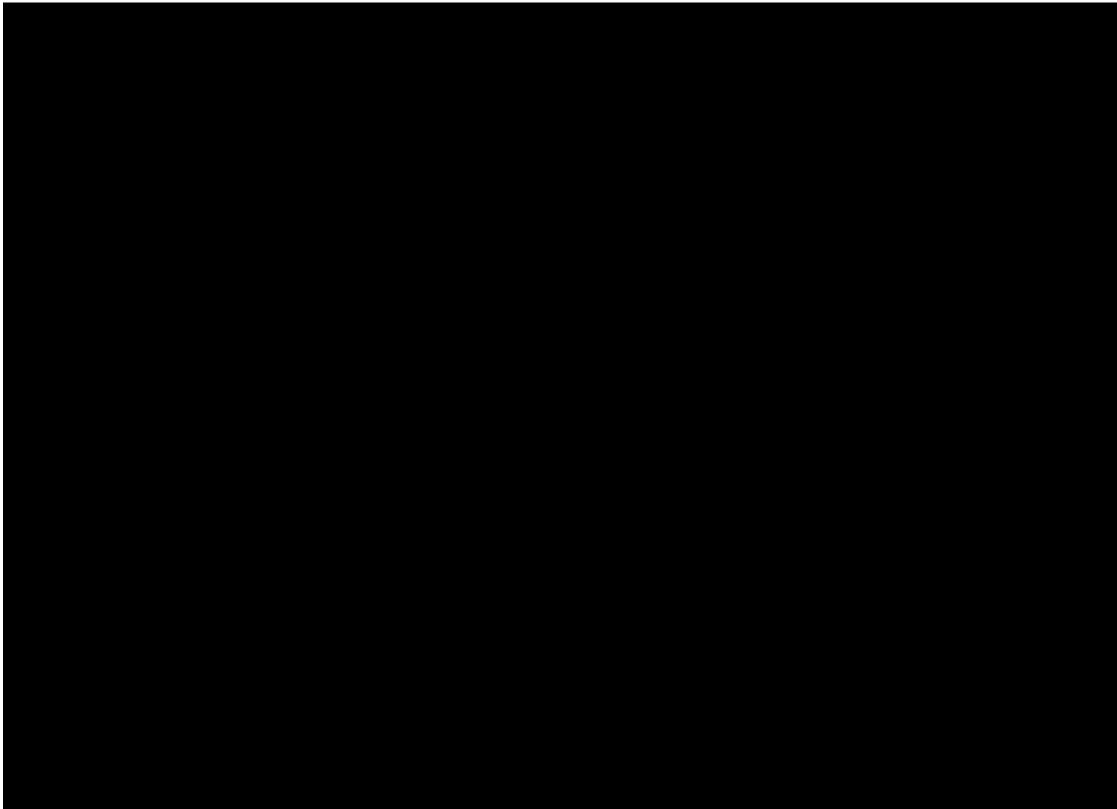
- Test Mode : Mode 3
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH06-HY
 Condition : BI-LOG-2004-1122 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx_CH06,2437MHz+Adaptor 2
 Power : 19

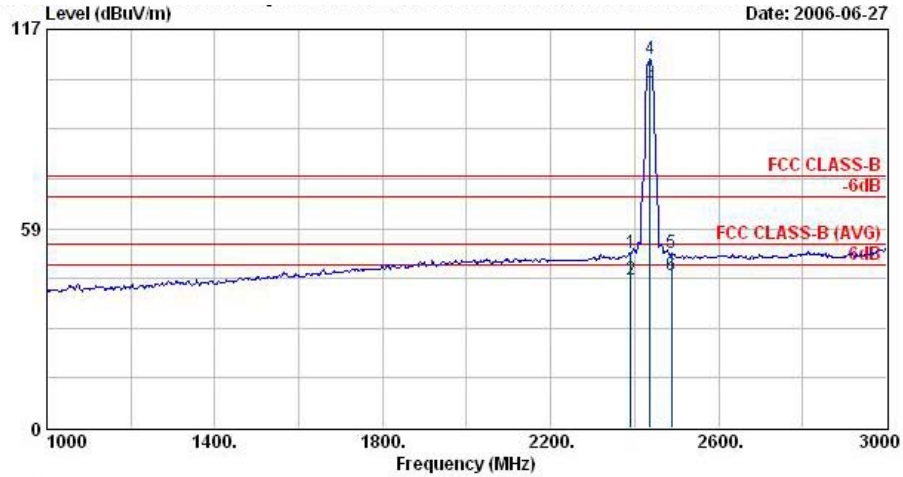
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	128.28	32.57	-10.93	43.50	47.50	11.78	2.19	28.89	100	174	QP
2 !	195.24	38.35	-5.15	43.50	54.81	9.72	2.54	28.71	400	0	Peak
3 @	249.78	41.73	-4.27	46.00	56.02	11.73	2.96	28.98	400	0	Peak





FCC TEST REPORT

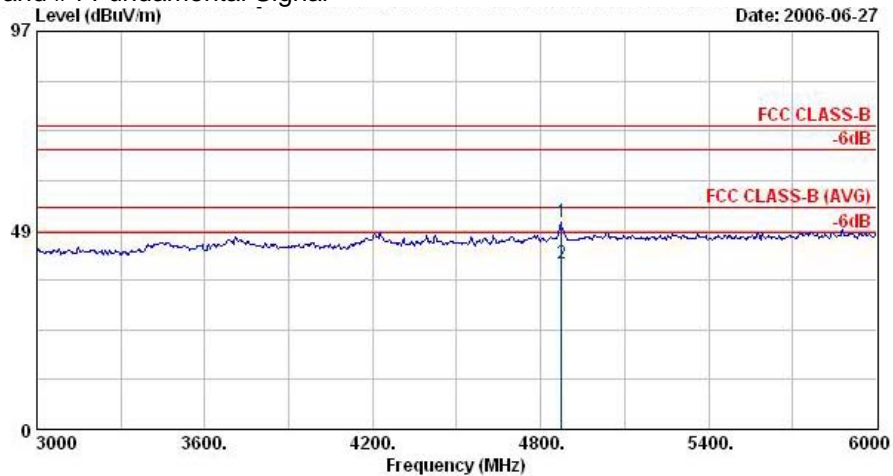
Report No. : FR661605-02



Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx CH06, 2437MHz+Adapter 2
 Power : 18

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	51.49	-22.51	74.00	52.43	30.26	4.26	35.46	100	360	Peak
2	2390.00	43.32	-10.68	54.00	44.26	30.26	4.26	35.46	100	252	Average
3 @	2437.00	101.40			102.30	30.28	4.29	35.47	100	252	Average
4 @	2437.00	108.13			109.04	30.27	4.29	35.47	100	360	Peak
5	2488.00	51.42	-22.58	74.00	52.27	30.30	4.36	35.51	100	360	Peak
6	2488.00	44.72	-9.28	54.00	45.57	30.30	4.36	35.51	100	252	Average

Remark: #3 and #4 Fundamental Signal



Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : WLAN Access Point
 Power : 120Vac/60Hz
 Model : FR 661605-02
 Memo : 11b Tx CH06, 2437MHz+Adapter 2
 Power : 18

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	4874.00	50.32	-23.68	74.00	47.04	33.14	6.30	36.16	100	0	Peak
2	4874.00	40.40	-13.60	54.00	37.12	33.14	6.30	36.16	100	39	Average