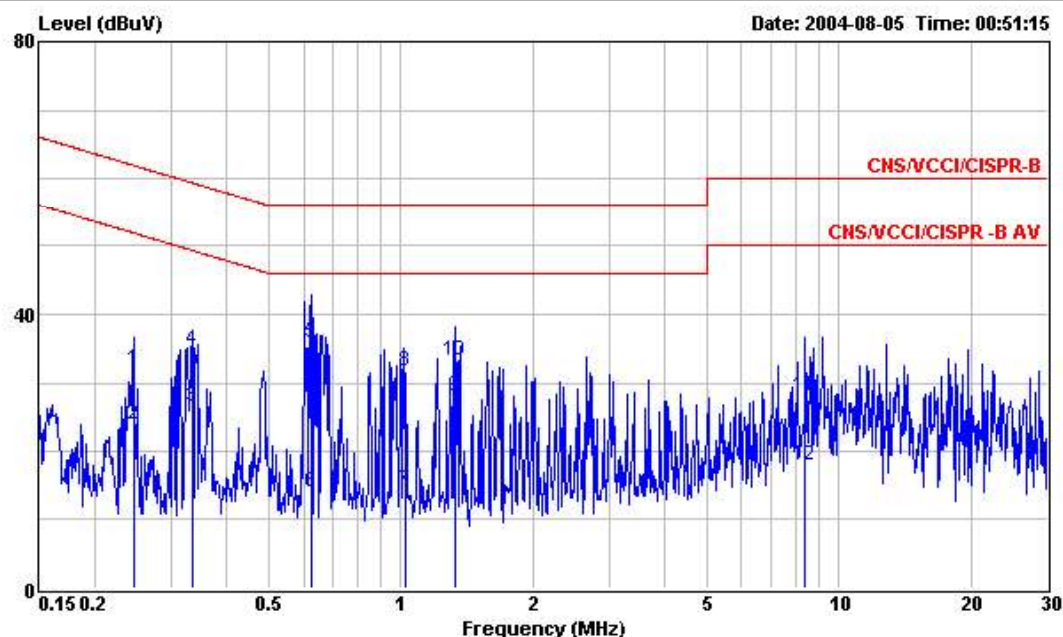


6.3.5 Frequency Range of Test : 150kHz to 30 MHz

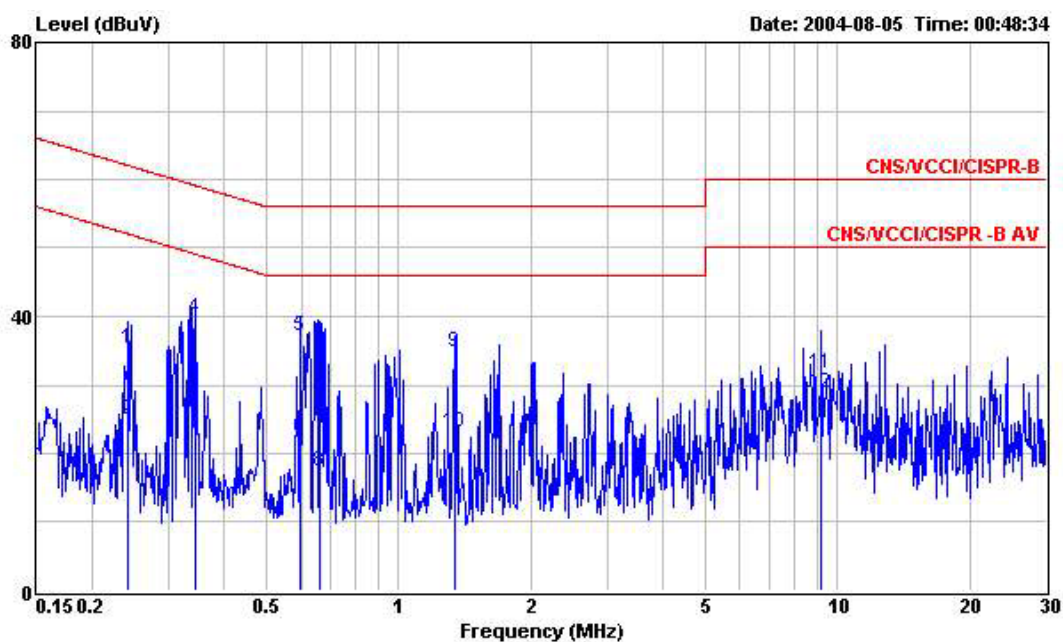
- Test Mode : Mode 5
- Temperature : 25.5°C
- Relative Humidity : 53 %

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



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
 EUT : 802.11a/b/g Access Point
 Power : 120Vac/60Hz
 Model : WASP-5100
 Memo : 802.11 a link mode

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.246	32.03	-29.86	61.89	31.91	0.10	0.02	QP
2	0.246	23.86	-28.03	51.89	23.74	0.10	0.02	Average
3	0.334	26.37	-22.98	49.35	26.25	0.10	0.02	Average
4	0.334	34.79	-24.56	59.35	34.67	0.10	0.02	QP
5	0.627	35.88	-20.12	56.00	35.75	0.10	0.03	QP
6	0.627	14.14	-31.86	46.00	14.01	0.10	0.03	Average
7	1.020	14.39	-31.61	46.00	14.25	0.10	0.04	Average
8	1.020	31.70	-24.30	56.00	31.56	0.10	0.04	QP
9	1.330	27.93	-18.07	46.00	27.77	0.10	0.06	Average
10	1.330	33.17	-22.83	56.00	33.01	0.10	0.06	QP
11	8.370	27.94	-32.06	60.00	27.66	0.18	0.10	QP
12	8.370	17.80	-32.20	50.00	17.52	0.18	0.10	Average



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : 802.11a/b/g Access Point
 Power : 120Vac/50Hz
 Model : WASP-5100
 Memo : 802.11 a link mode

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.242	35.42	-26.61	62.03	35.30	0.10	0.02	QP
2	0.242	24.97	-27.06	52.03	24.85	0.10	0.02	Average
3	0.343	26.37	-22.76	49.13	26.24	0.10	0.03	Average
4	0.343	39.65	-19.48	59.13	39.52	0.10	0.03	QP
5	0.599	37.05	-18.95	56.00	36.92	0.10	0.03	QP
6	0.599	22.38	-23.62	46.00	22.25	0.10	0.03	Average
7	0.658	35.99	-20.01	56.00	35.85	0.10	0.04	QP
8	0.658	17.44	-28.56	46.00	17.30	0.10	0.04	Average
9	1.340	34.71	-21.29	56.00	34.55	0.10	0.06	QP
10	1.340	23.13	-22.87	46.00	22.97	0.10	0.06	Average
11	9.200	31.76	-28.24	60.00	31.46	0.20	0.10	QP
12	9.200	28.73	-21.27	50.00	28.43	0.20	0.10	Average

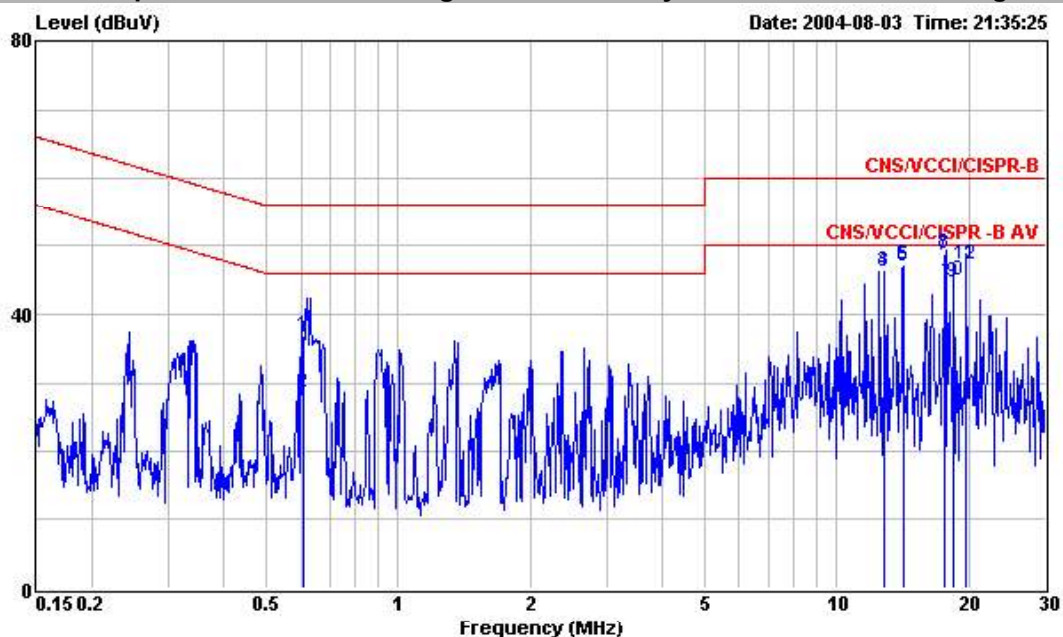
Test Engineer : 

Jay

6.3.6 Frequency Range of Test : 150kHz to 30 MHz

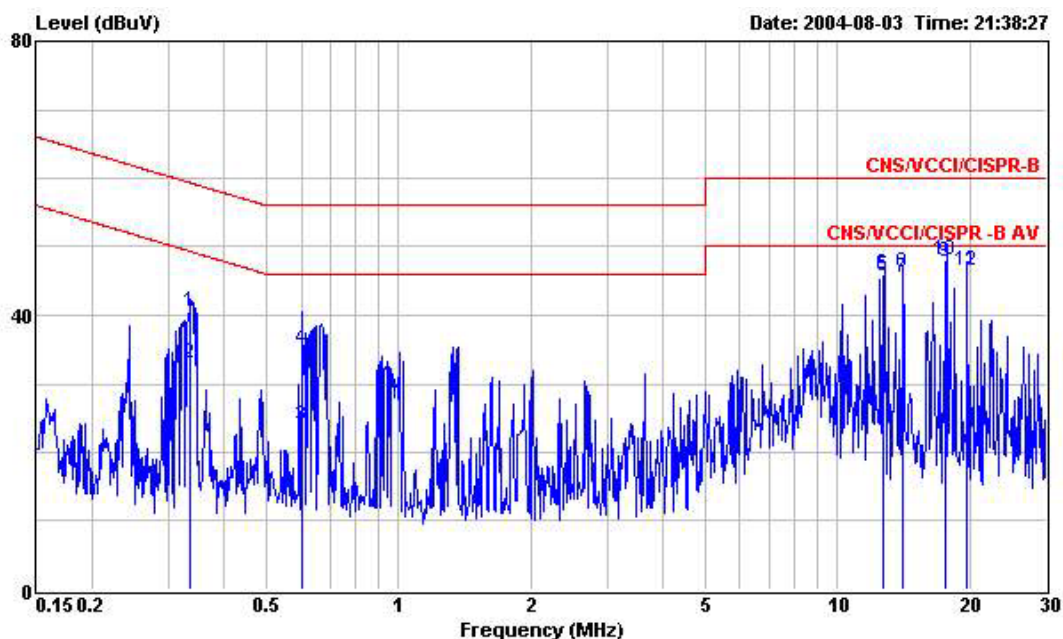
- Test Mode : Mode 6
- Temperature : 25.5°C
- Relative Humidity : 53 %

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



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
 EUT : 802.11a/b/g Access Point
 Power : 120Vac/60Hz
 Model : WASP-5100
 Memo : 802.11 a+g link mode

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.606	36.99	-19.01	56.00	36.86	0.10	0.03	QP
2	0.606	28.52	-17.48	46.00	28.39	0.10	0.03	Average
3	12.810	46.18	-3.82	50.00	45.87	0.20	0.11	Average
4	12.810	46.26	-13.74	60.00	45.95	0.20	0.11	QP
5	14.214	46.94	-13.06	60.00	46.62	0.20	0.12	QP
6	14.214	47.27	-2.73	50.00	46.95	0.20	0.12	Average
7	17.695	48.48	-11.52	60.00	48.08	0.26	0.14	QP
8	17.695	48.85	-1.15	50.00	48.45	0.26	0.14	Average
9	18.489	44.65	-15.35	60.00	44.24	0.27	0.14	QP
10	18.489	45.02	-4.98	50.00	44.61	0.27	0.14	Average
11	19.710	47.27	-2.73	50.00	46.82	0.30	0.15	Average
12	19.710	47.31	-12.69	60.00	46.86	0.30	0.15	QP



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : 802.11a/b/g Access Point
 Power : 120Vac/60Hz
 Model : WASP-5100
 Memo : 802.11 a+g link mode

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.336	40.43	-18.87	59.30	40.31	0.10	0.02	QP
2	0.336	33.08	-16.22	49.30	32.96	0.10	0.02	Average
3	0.602	23.85	-22.15	46.00	23.72	0.10	0.03	Average
4	0.602	35.15	-20.85	56.00	35.02	0.10	0.03	QP
5	12.750	45.67	-14.33	60.00	45.30	0.26	0.11	QP
6	12.750	46.01	-3.99	50.00	45.64	0.26	0.11	Average
7	14.154	45.41	-14.59	60.00	45.00	0.29	0.12	QP
8	14.154	46.24	-3.76	50.00	45.83	0.29	0.12	Average
9	17.696	47.73	-12.27	60.00	47.29	0.30	0.14	QP
10	17.696	48.02	-1.98	50.00	47.58	0.30	0.14	Average
11	19.710	46.59	-3.41	50.00	46.14	0.30	0.15	Average
12	19.710	46.54	-13.46	60.00	46.09	0.30	0.15	QP

Test Engineer : 

Jay

7. Test of Radiated Emission

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defined in ANSI C63.4-2001. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

7.1. Major Measuring Instruments

- Amplifier (MITEQ AFS44)
 - RF Gain 40 dB
 - Signal Input 100 MHz to 26.5 GHz

- Spectrum analyzer (HP 8447D)
 - RF Gain 30 dB
 - Signal Input 100 kHz to 1.3 GHz

- Amplifier (PA-103)
 - RF Gain 30 dB
 - Signal Input 100 MHz to 1 GHz

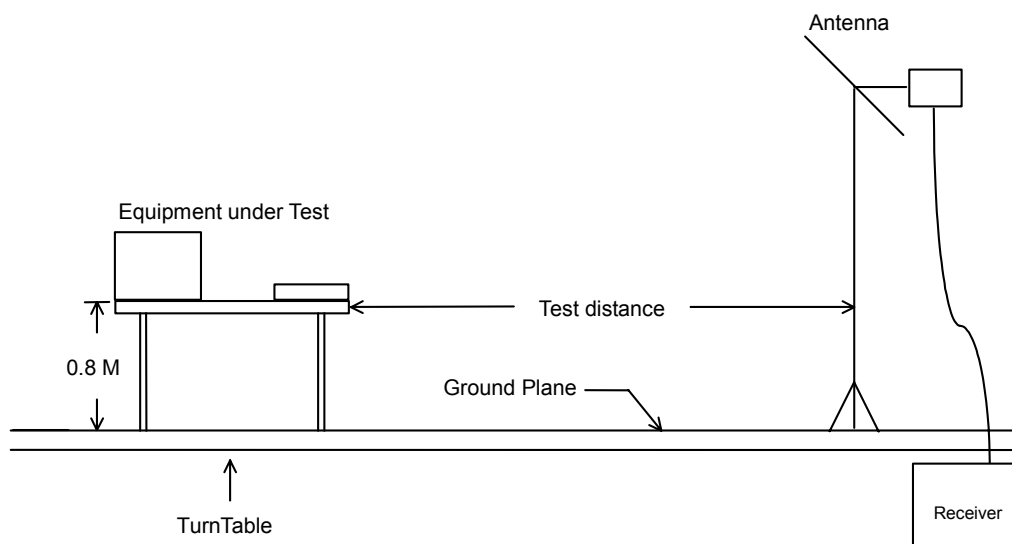
- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 1 GHz
 - Stop Frequency 25 GHz
 - Resolution Bandwidth 1 MHz
 - Video Bandwidth 1 MHz
 - Signal Input 9 kHz to 40 GHz

- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 30MHz
 - Stop Frequency 1 GHz
 - Resolution Bandwidth 120 KHz
 - Video Bandwidth 300KHz
 - Signal Input 9 kHz to 40 GHz

7.2. Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. 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.
5. 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.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. 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.
8. 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.

7.3. Typical Test Setup Layout of Radiated Emission



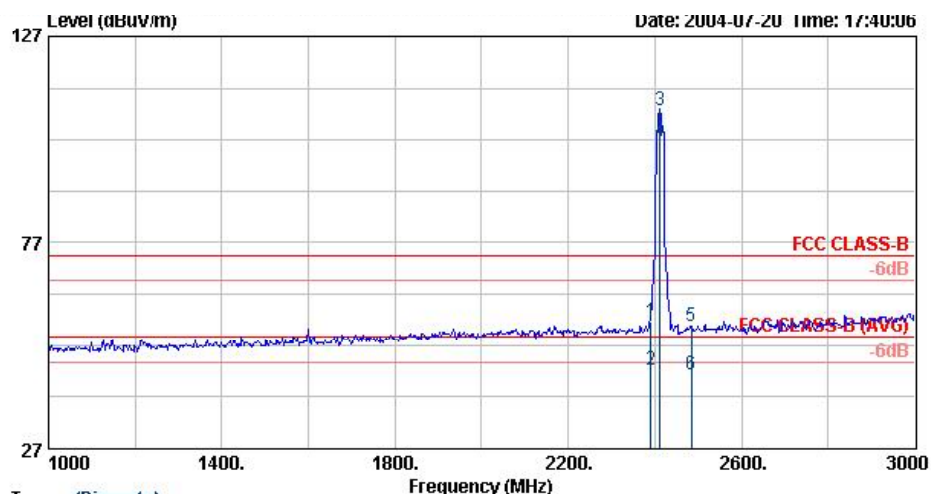
7.4. Test Result of Radiated Emission

7.4.1 Antenna 1

Test Mode: 802.11b TX CH01

- Test Distance : 3 m
- Temperature : 25.3 °C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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

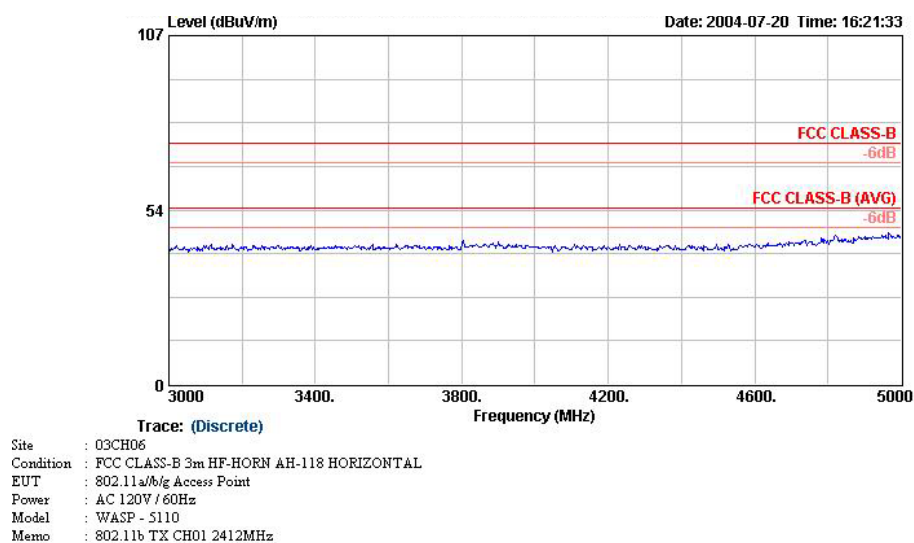


Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - S110
 Memo : 802.11b TX CH01 2412MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB		cm	deg
1	2390.00	57.94	-16.06	74.00	28.40	44.34	3.33	Peak	0	0
2	2390.00	46.09	-7.91	54.00	28.40	44.34	3.33	Average	0	0
3 @	2412.30	109.17			28.41	44.34	3.35	Peak	0	0
4 @	2412.30	101.61			28.41	44.34	3.35	Average	0	0
5	2483.50	56.83	-17.17	74.00	28.48	44.31	3.40	Peak	---	---
6	2483.50	44.92	-9.08	54.00	28.48	44.31	3.40	Average	0	0

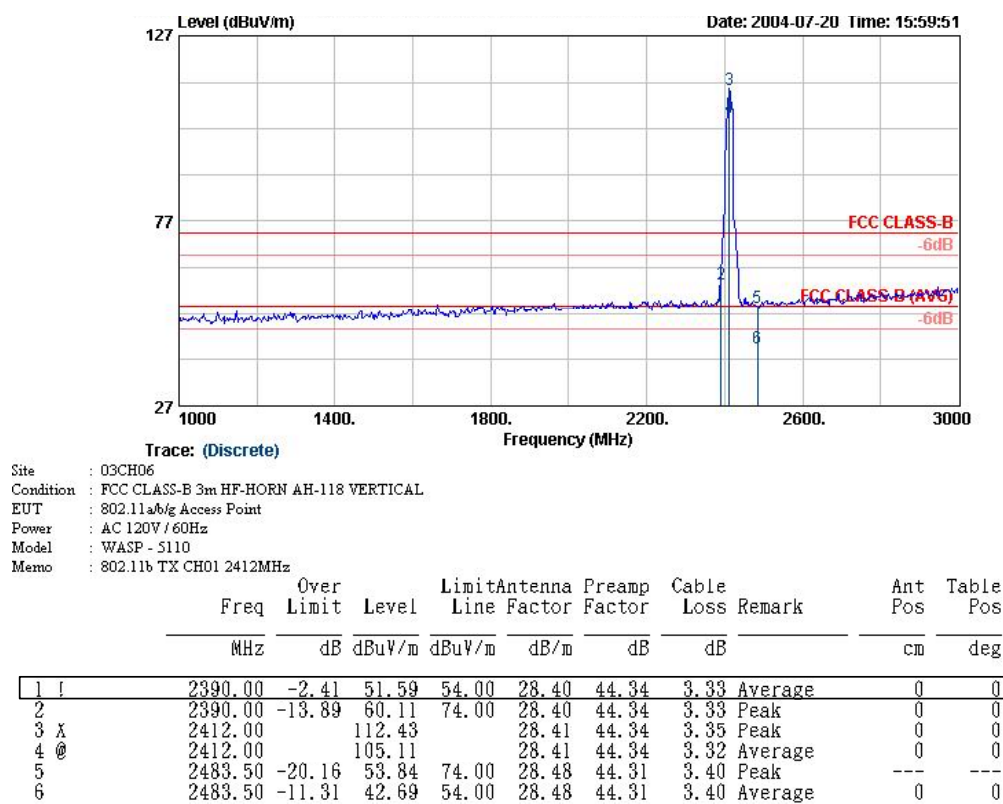
Remark:

The "X" represent a fundamental frequency.

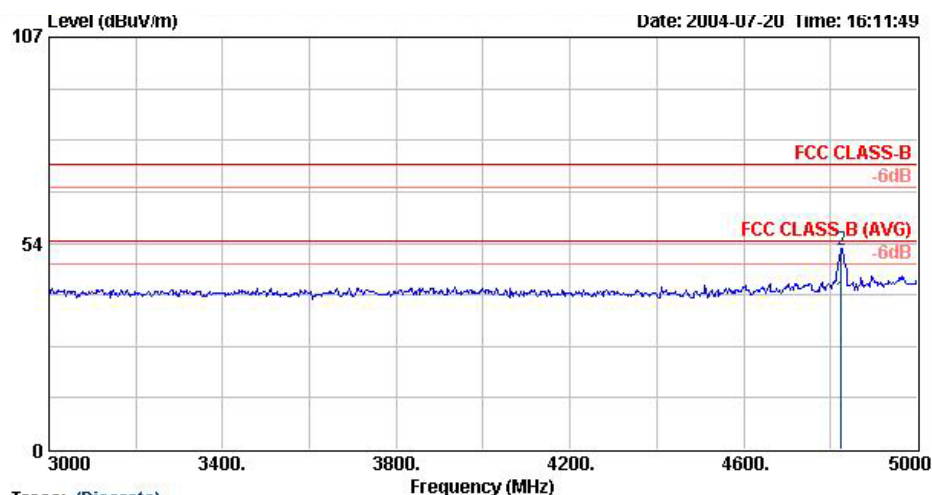


Remark:

The "X" represent a fundamental frequency.



Remark: The "X" represent a fundamental frequency.



Trace: (Discrete)

Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH01 2412MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable		Ant	Table
	MHz	dBuV/m		dB	Line	Factor	Loss	Remark	Pos	Pos
			Limit						cm	deg
1	4824.00	39.06	-14.94	54.00	32.36	45.56	4.76	Average	0	0
2	4824.00	51.58	-22.42	74.00	32.36	45.56	4.76	Peak	0	0

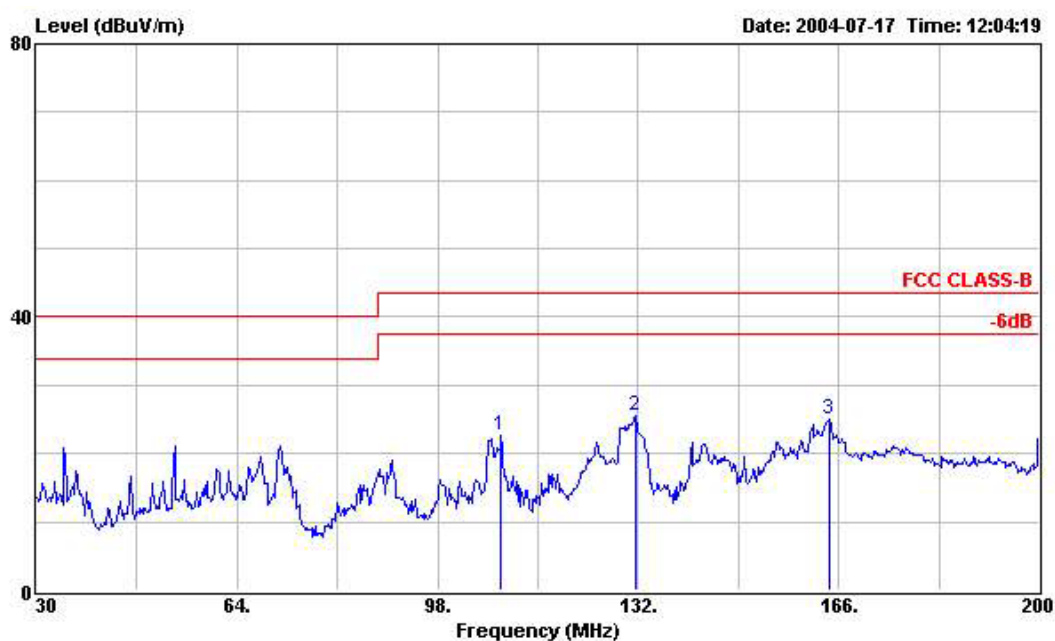
Remark:

Frequency from 5GHz to 25GHz, the emission emitted by the EUT is too low to be measured.

Test Mode: 802.11b TX CH06

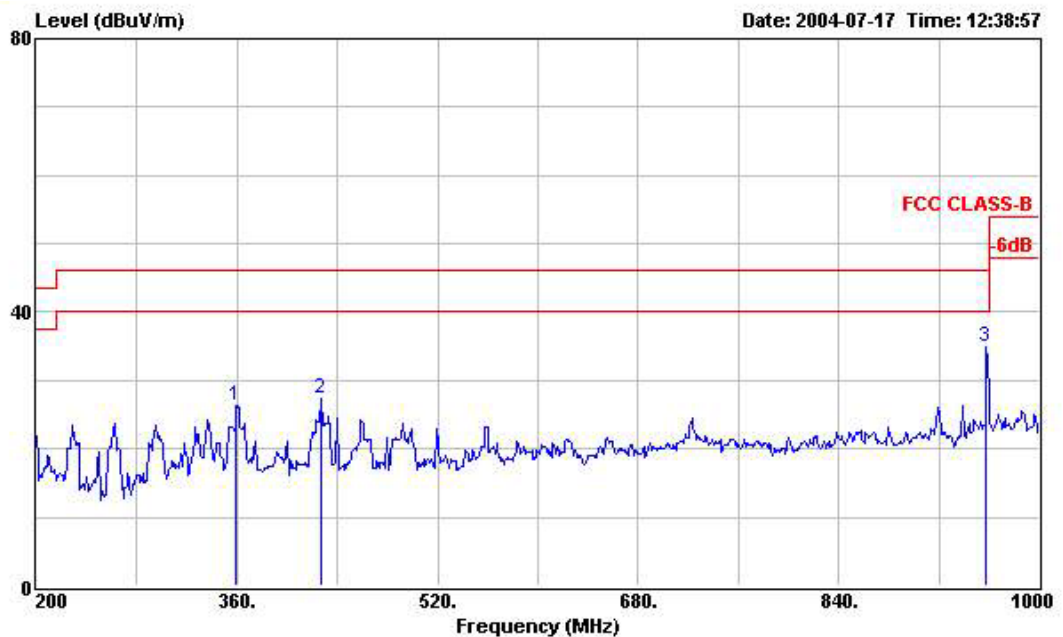
- Test Distance : 3 m
- Temperature : 25.3 °C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



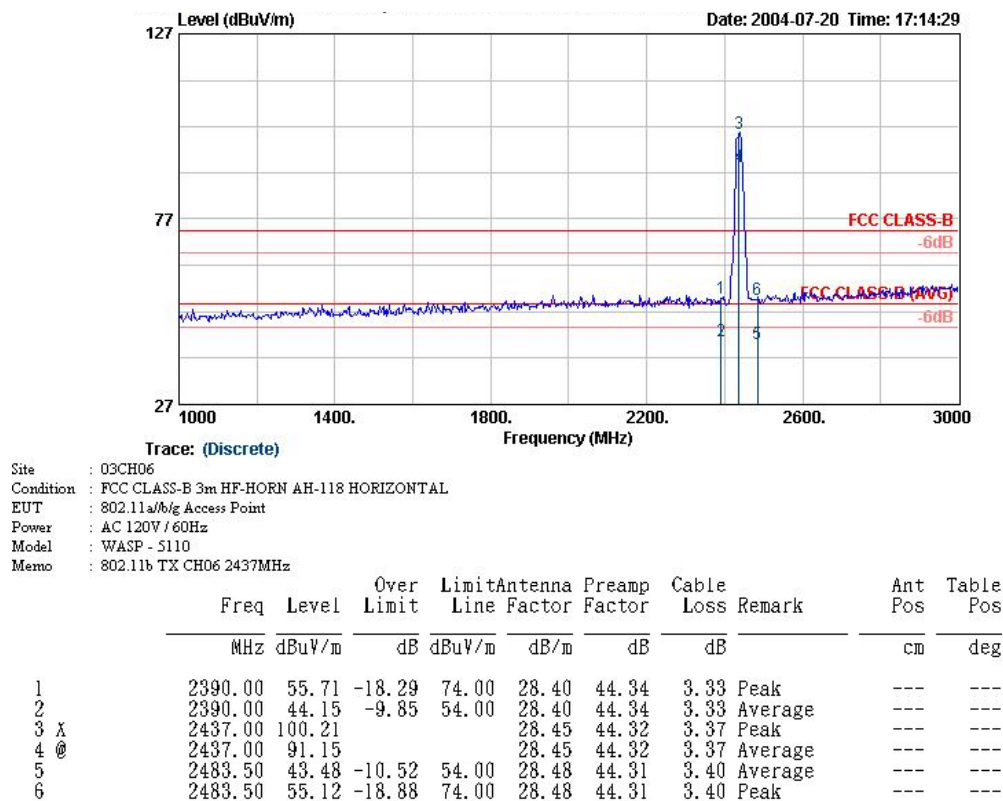
Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11b TX CH06 2437MHz
 : WS2000

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	108.710	22.65	-20.85	43.50	38.32	10.35	1.86	27.88	Peak	---	---
2	131.660	25.62	-17.88	43.50	39.96	11.43	2.07	27.84	Peak	---	---
3	164.470	25.03	-18.47	43.50	37.54	12.94	2.32	27.77	Peak	---	---

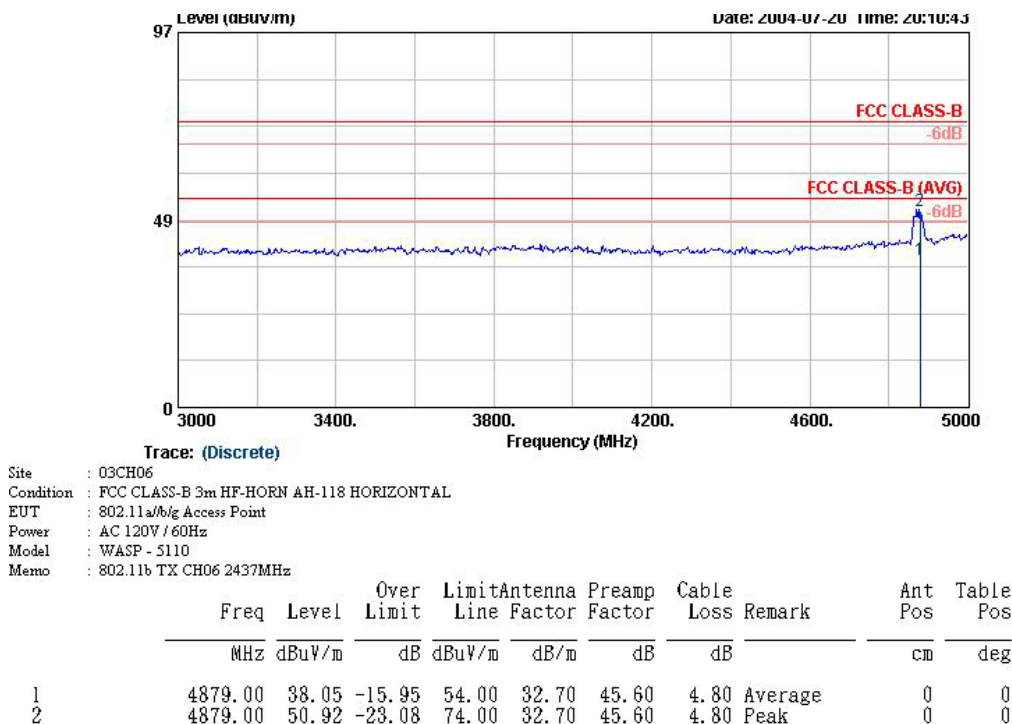


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11b TX CH06 2437MHz
 : WS2000

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	359.200	26.43	-19.57	46.00	35.46	15.23	3.34	27.60	Peak	---	---
2	426.400	27.41	-18.59	46.00	35.66	16.18	3.60	28.03	Peak	---	---
3	957.600	34.86	-11.14	46.00	35.55	21.90	5.65	28.24	Peak	---	---

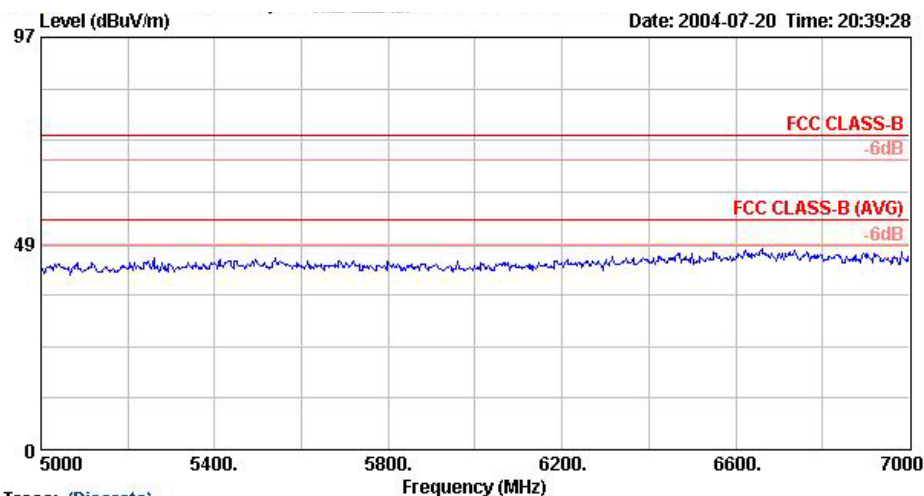


Remark: The "X" represent a fundamental frequency.

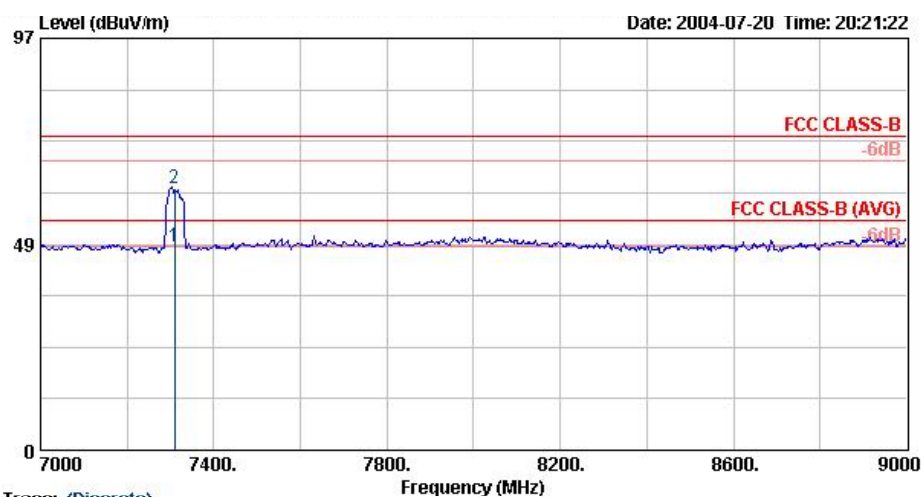


FCC TEST REPORT

Report No. :F471907



Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz



Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	Limit	dB	Line	Factor	Loss		Pos	Pos
					Factor				cm	deg
1	7310.00	47.93	-6.07	54.00	35.51	46.24	6.20	Average	0	0
2	7310.00	61.59	-12.41	74.00	35.51	46.24	6.20	Peak	0	0

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

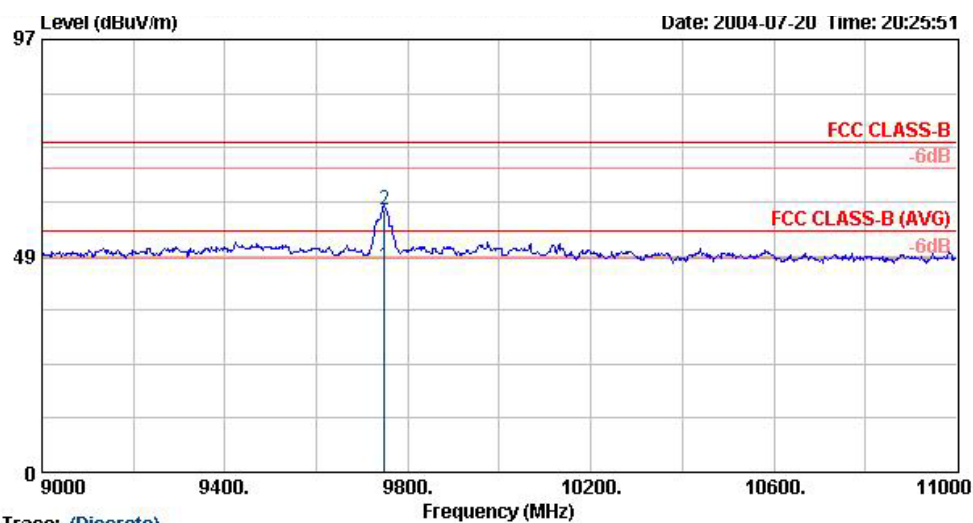
FCC ID : H9PWSAP5100

Page No. : 115 of 50

Issued Date : Aug. 12, 2004

FCC TEST REPORT

Report No. :F471907



Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	Limit	dB	Line	Factor	Loss		Pos	Pos
					Factor				cm	deg
1	9748.00	46.20	-7.80	54.00	38.26	44.45	7.91	Average	0	0
2	9748.00	58.86	-15.14	74.00	38.26	44.45	7.91	Peak	0	0

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

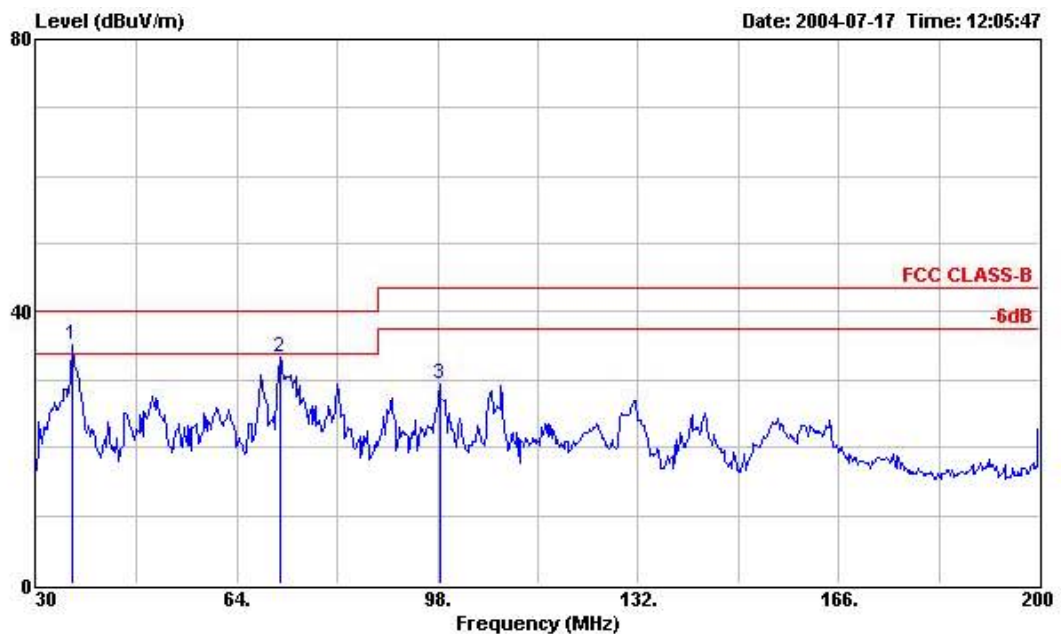
FCC ID : H9PWSAP5100

Page No. : 116 of 50

Issued Date : Aug. 12, 2004

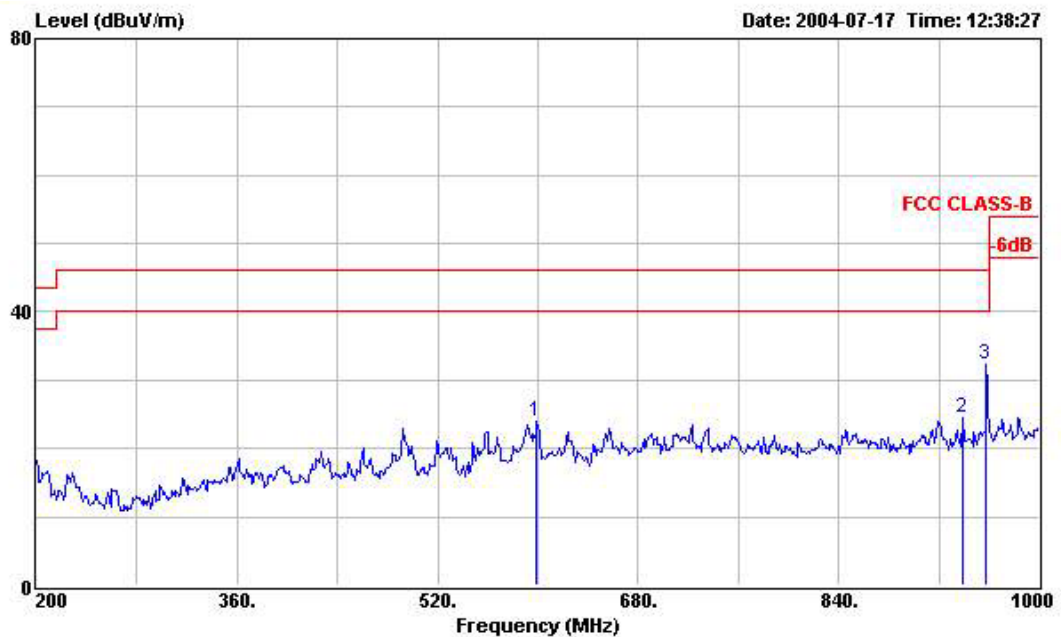
FCC TEST REPORT

Report No. :F471907



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11b TX CH06 2437MHz
 : WS2000

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	35.950	35.05	-4.95	40.00	49.32	12.73	1.03	28.03	Peak	105	313
2	71.310	33.23	-6.77	40.00	50.81	8.96	1.42	27.96	Peak	---	---
3	98.340	29.34	-14.16	43.50	45.84	9.65	1.75	27.90	Peak	---	---

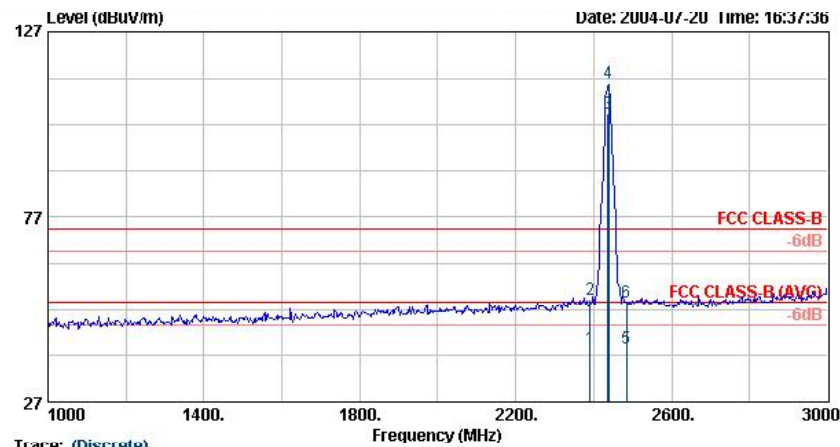


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11b TX CH06 2437MHz
 : WS2000

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	599.200	23.91	-22.09	46.00	29.36	18.98	4.37	28.80	Peak	---	---
2	938.400	24.38	-21.62	46.00	25.53	21.66	5.45	28.26	Peak	---	---
3	957.600	32.39	-13.61	46.00	33.08	21.90	5.65	28.24	Peak	---	---

FCC TEST REPORT

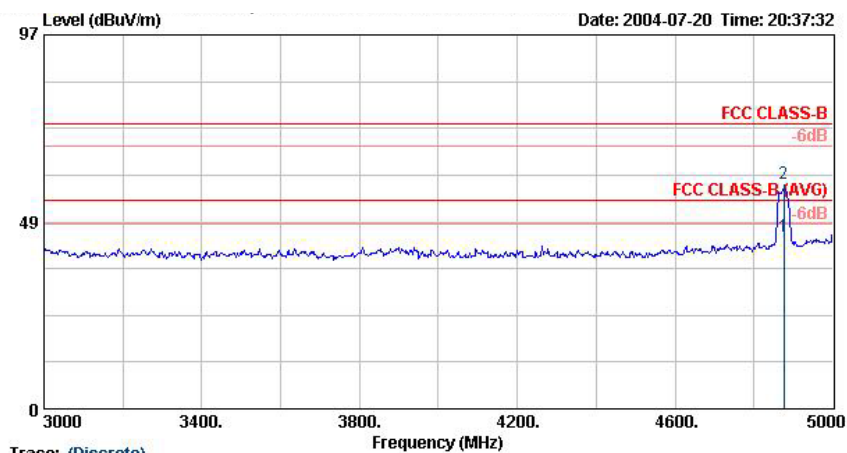
Report No. :F471907



Site : 03CH06
Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
EUT : 802.11a/b/g Access Point
Power : AC 120V / 60Hz
Model : WASP - 5110
Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB		Pos	Pos
1	2390.00	41.33	-12.67	54.00	28.40	44.34	3.33	Average	---	---
2	2390.00	54.85	-19.15	74.00	28.40	44.34	3.33	Peak	---	---
3 @	2437.00	104.92			28.45	44.32	3.37	Average	---	---
4 @	2438.00	113.11			28.45	44.32	3.37	Peak	---	---
5	2483.50	41.61	-12.39	54.00	28.48	44.31	3.40	Average	---	---
6	2483.50	54.11	-19.89	74.00	28.48	44.31	3.40	Peak	---	---

Remark: The "X" represent a fundamental frequency.



Site : 03CH06
Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
EUT : 802.11a/b/g Access Point
Power : AC 120V / 60Hz
Model : WASP - 5110
Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB		Pos	Pos
1	4875.00	44.88	-9.12	54.00	32.70	45.60	4.80	Average	0	0
2	4875.00	58.53	-15.47	74.00	32.70	45.60	4.80	Peak	0	0

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

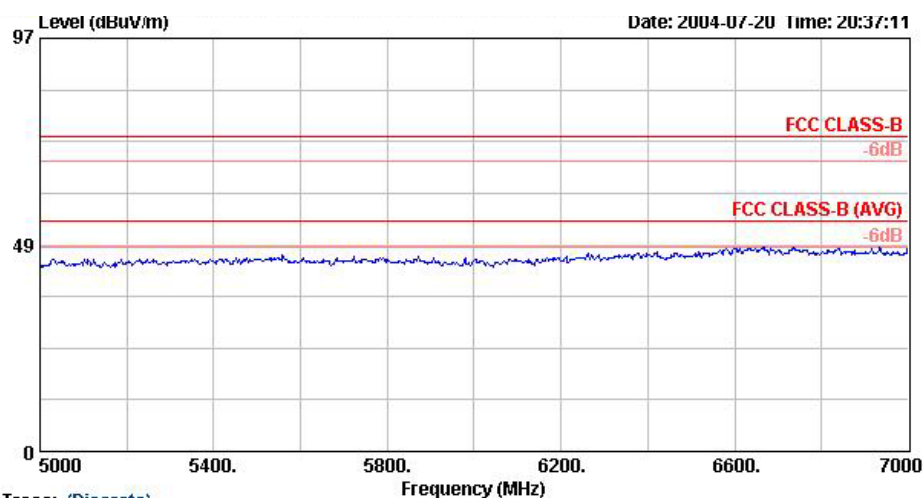
FCC ID : H9PWSAP5100

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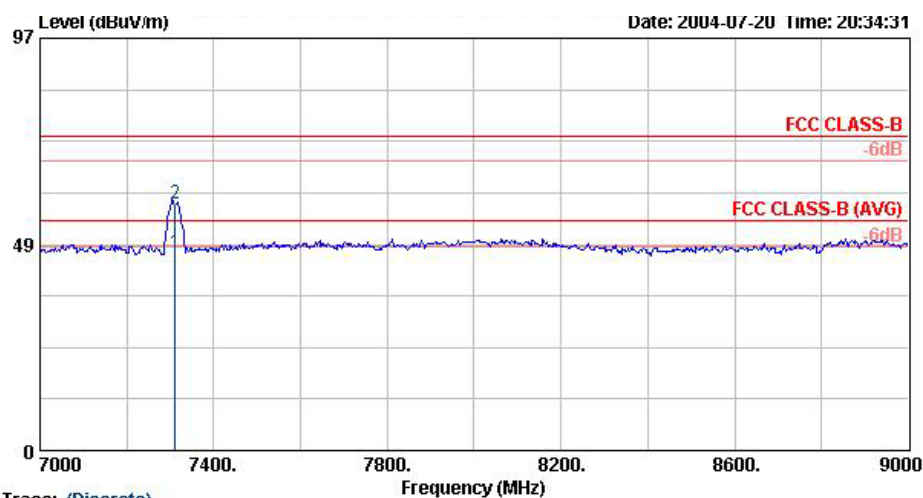
FCC TEST REPORT

Report No. :F471907



Trace: (Discrete)

Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz



Trace: (Discrete)

Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	Line Factor	Factor	Loss		Pos	Pos
									cm	deg
1	7312.00	46.57	-7.43	54.00	35.51	46.24	6.20	Average	0	0
2	7312.00	58.17	-15.83	74.00	35.51	46.24	6.20	Peak	0	0

SPORTON International Inc.

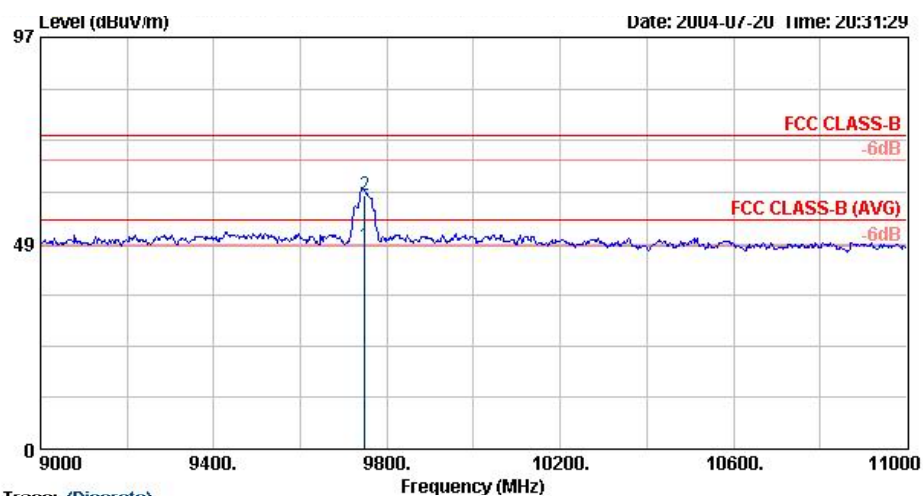
TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : H9PWSAP5100

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Issued Date : Aug. 12, 2004



Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH06 2437MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	Limit	dBuV/m	Factor	Factor	Loss		Pos	Pos
			dB				dB		cm	deg
1	9748.00	47.93	-6.07	54.00	38.26	44.45	7.91	Average	0	0
2	9748.00	59.89	-14.11	74.00	38.26	44.45	7.91	Peak	0	0

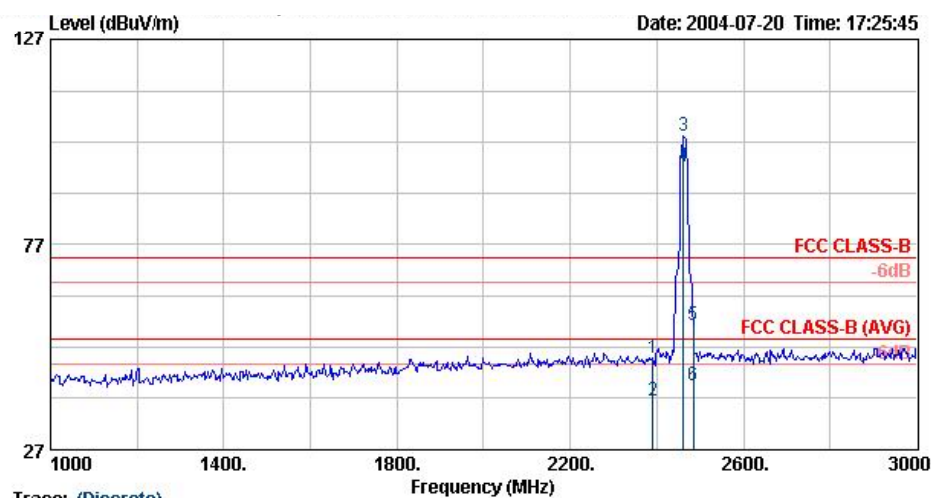
Remark:

Frequency from 11GHz to 25GHz, the emission emitted by the EUT is too low to be measured.

Test Mode: 802.11b TX CH11

- Test Distance : 3 m
- Temperature : 25.3 °C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11b TX CH11 2462MHz

	Freq	Over Limit	Level	Limit	Antenna Line Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dB	dBuV/m	dBuV/m	dB/m	dB	dB		cm	deg
1	2390.00	-24.53	49.47	74.00	28.40	44.34	3.33	Peak	---	---
2	2390.00	-15.11	38.89	54.00	28.40	44.34	3.33	Average	---	---
3 X	2462.00		103.60		28.47	44.32	3.38	Peak	---	---
4 @	2462.00		95.98		28.47	44.32	3.36	Average	---	---
5	2483.50	-16.45	57.55	74.00	28.48	44.31	3.40	Peak	---	---
6	2483.50	-11.28	42.72	54.00	28.48	44.31	3.40	Average	---	---

Remark: The "X" represent a fundamental frequency.