

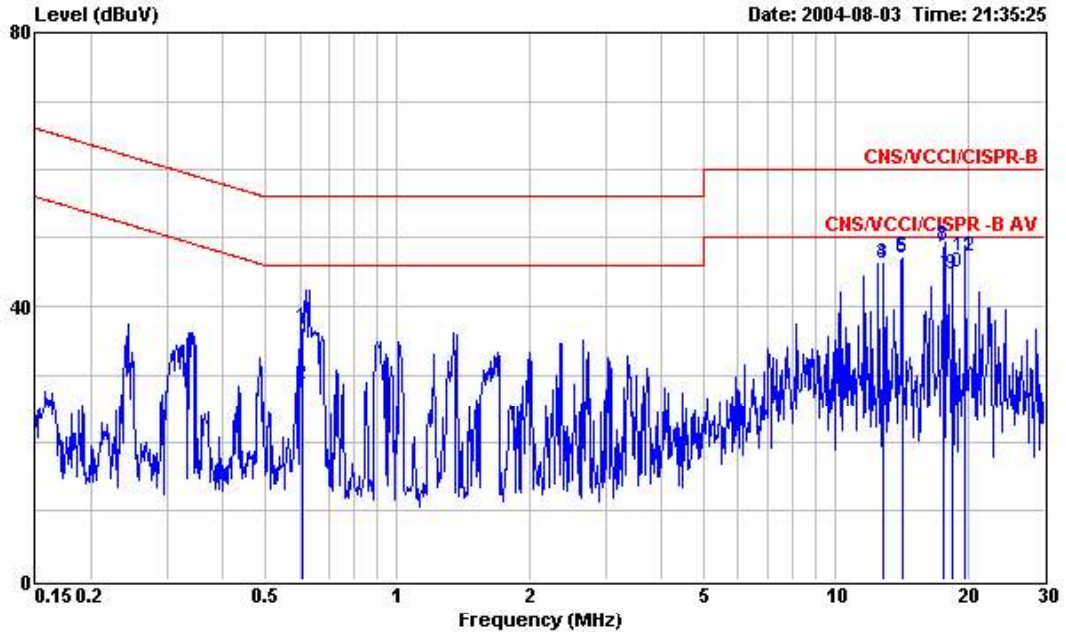
Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : 802.11a/b/g Access Point
 Power : 120Vac/50Hz
 Model : WASP-5100
 Memo : 802.11 a link mode

	Over	Limit	Read	Probe	Cable		
Freq	Level	Limit	Line	Level	Factor	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 : Jones Tsai
 Jones Tsai

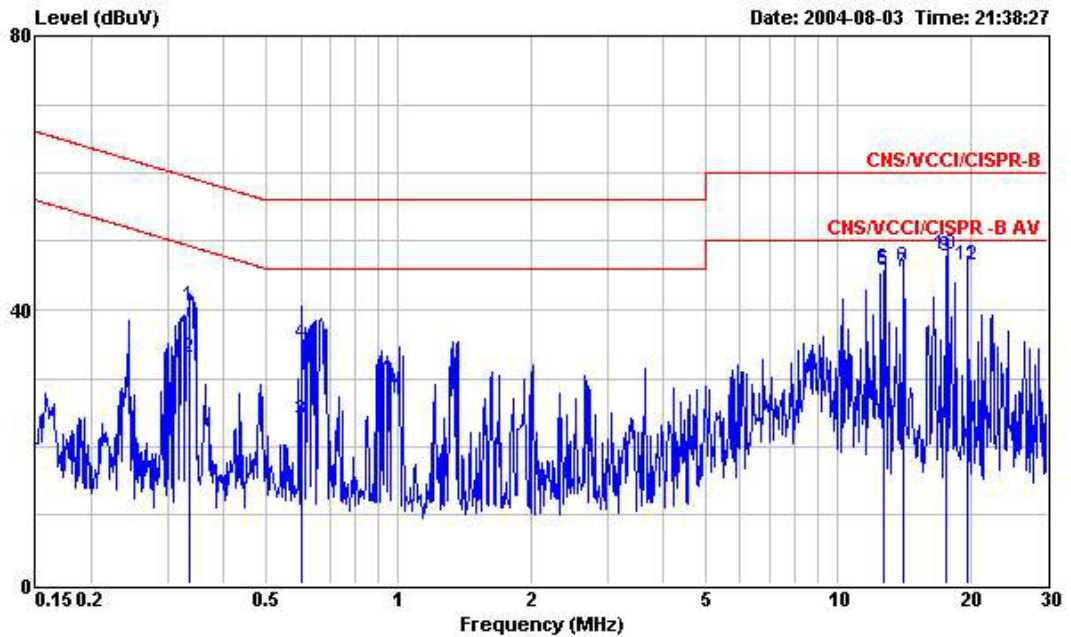
- Frequency Range of Test : from 150KHz to 30 MHz.
- Test Mode : Mode 4
- Temperature : 25.5°C
- Relative Humidity : 52 %

■ The test was passed at the minimum margin that 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
			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 : Jones Tsai
 Jones Tsai

5.6 Test of Radiated Emission

Radiated emissions from 30 MHz to 40GHz were measured according to the methods defines 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

5.6.1 Major Measuring Instruments

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

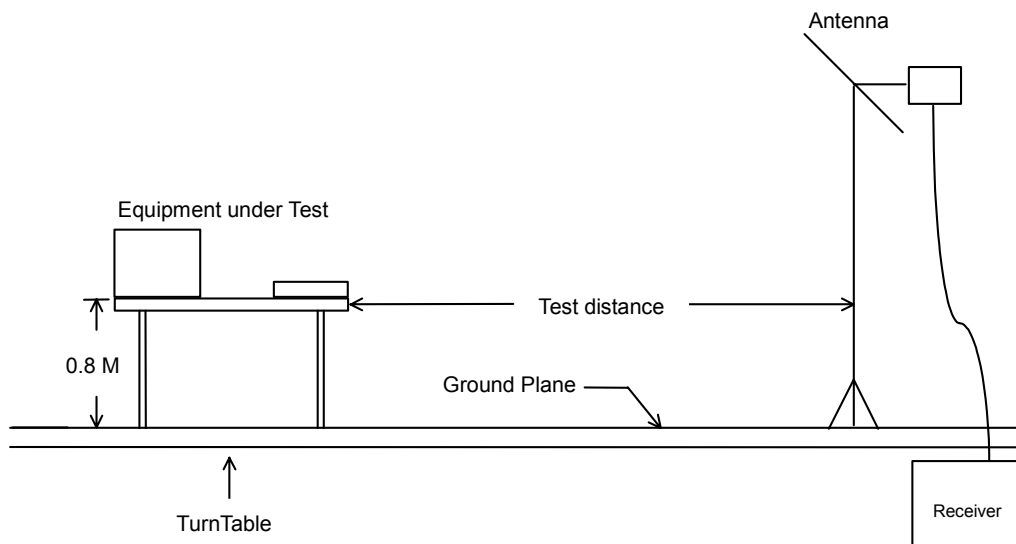
- Amplifier (PA-103)
 - RF Gain 30 dB
 - Signal Input 100 kHz to 1 GHz

- 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

5.6.2 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 both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
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 turn table (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. 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 which do not have 3 dB margin 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 peak 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.

5.6.3 Typical Test Setup Layout of Radiated Emission

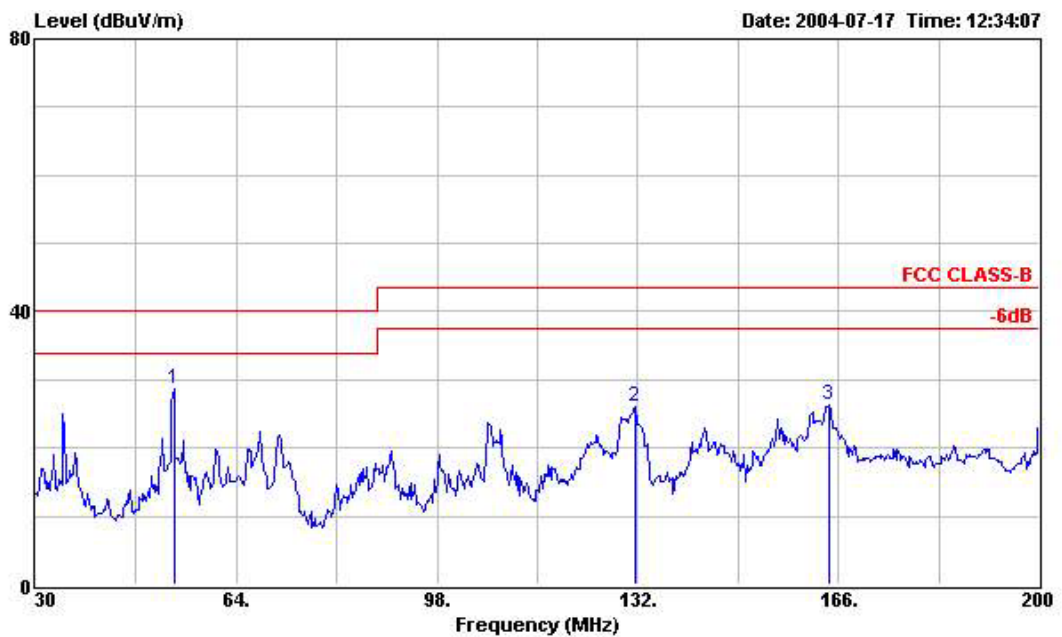


5.6.4 Test Result of Radiated Emission

5.6.4.1 Antenna 1

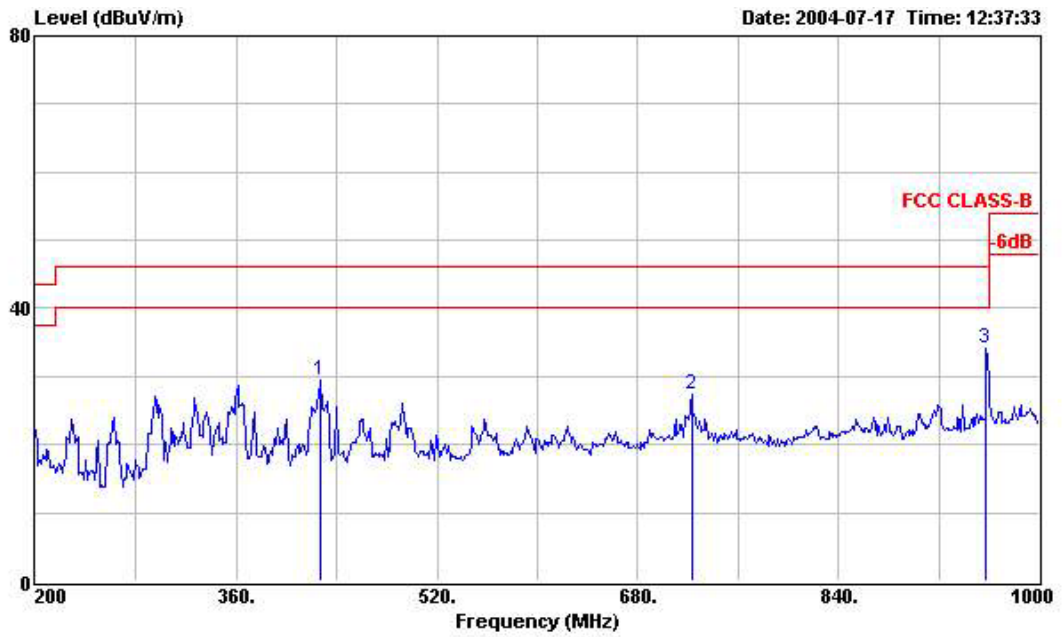
- Test Mode: 802.11a TX Frequency = 5180 MHz
- Test Distance : 3 M
- Temperature : 25.3°C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



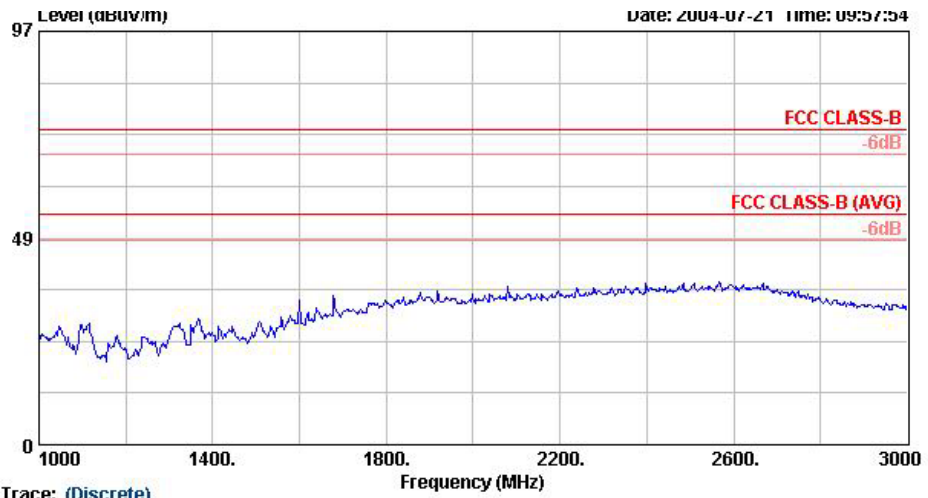
Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11a TX 5180MHz
 : WS2000

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	53.460	28.77	-11.23	40.00	45.36	10.16	1.24	27.99	Peak	---	---
2	131.660	26.05	-17.45	43.50	40.39	11.43	2.07	27.84	Peak	---	---
3	164.470	26.28	-17.22	43.50	38.79	12.94	2.32	27.77	Peak	---	---

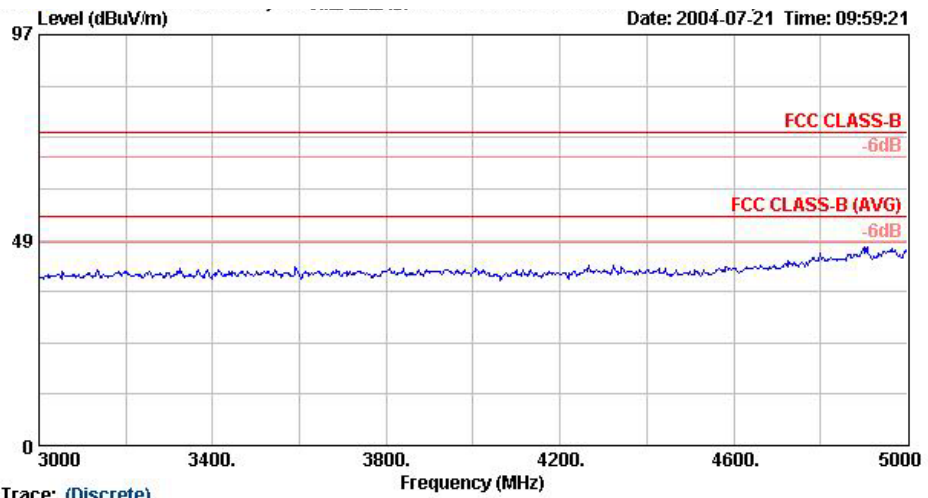


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11a TX 5180MHz
 : WS2000

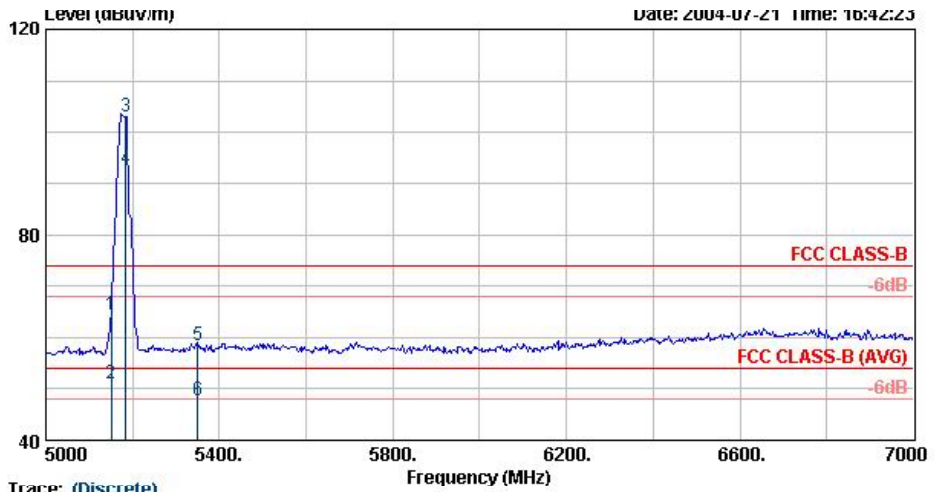
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	426.400	29.53	-16.47	46.00	37.78	16.18	3.60	28.03	Peak	---	---
2	723.200	27.37	-18.63	46.00	31.42	19.90	4.77	28.72	Peak	---	---
3	957.600	34.05	-11.95	46.00	34.74	21.90	5.65	28.24	Peak	---	---



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 : 802.11a TX 5180MHz



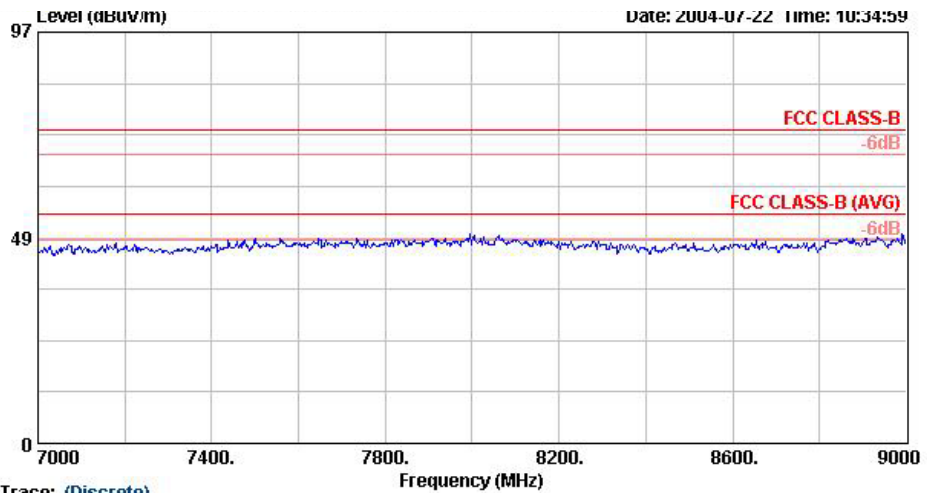
Site : 03CH06
Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
EUT : 802.11a/b/g Access Point
Power : AC 120V / 60Hz
Model : WASP - 5110
Memo : 802.11a TX 5180MHz



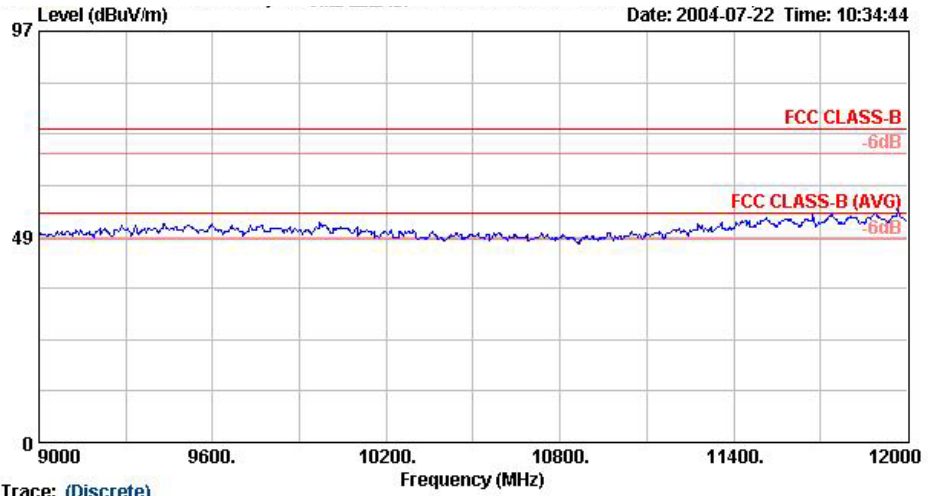
Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5180MHz

	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	5150.00	-9.70	64.30	74.00	33.71	45.91	5.00	Peak	---	---
2	I 5150.00	-2.88	51.12	54.00	33.71	45.91	5.00	Average	---	---
3	X 5184.00		102.96		33.76	45.96	5.02	Peak	---	---
4	X 5184.00		93.02		33.76	45.96	5.02	Average	---	---
5	5350.00	-15.45	58.55	74.00	33.99	46.19	5.14	Peak	---	---
6	5350.00	-6.15	47.85	54.00	33.99	46.19	5.14	Average	---	---

Remark: The "X" represent a fundamental frequency.

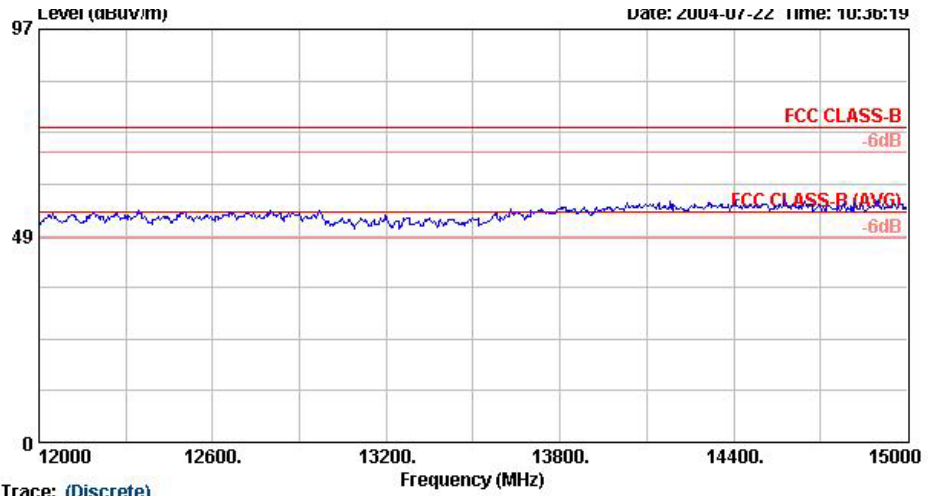


Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5180MHz



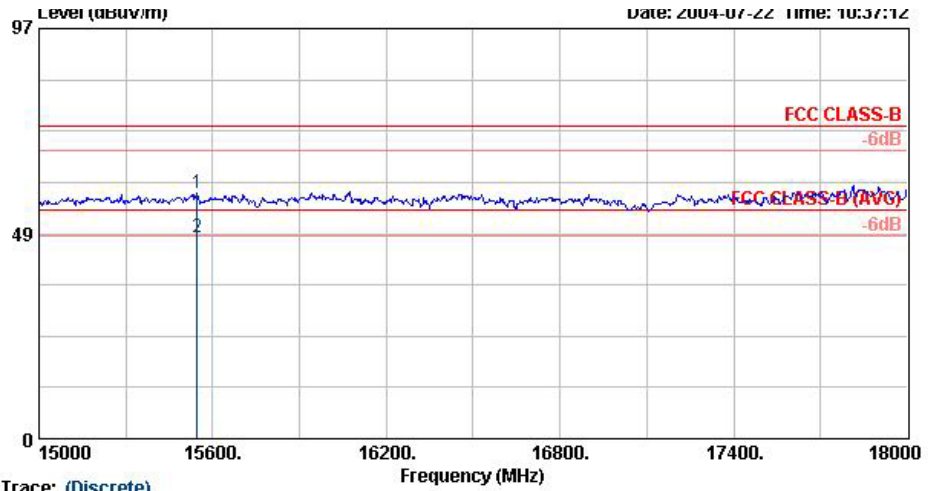
Trace: (Discrete)

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 : 802.11a TX 5180MHz



Trace: (Discrete)

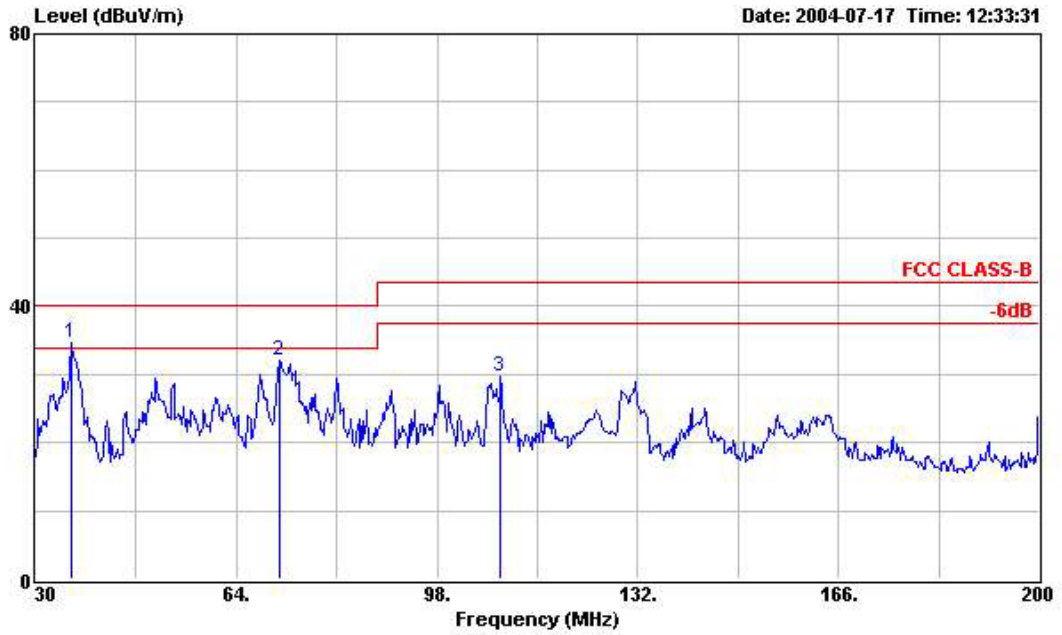
Site : 03CH06
Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
EUT : 802.11a/b/g Access Point
Power : AC 120V / 60Hz
Model : WASP - 5110
Memo : 802.11a TX 5180MHz



Trace: (Discrete)

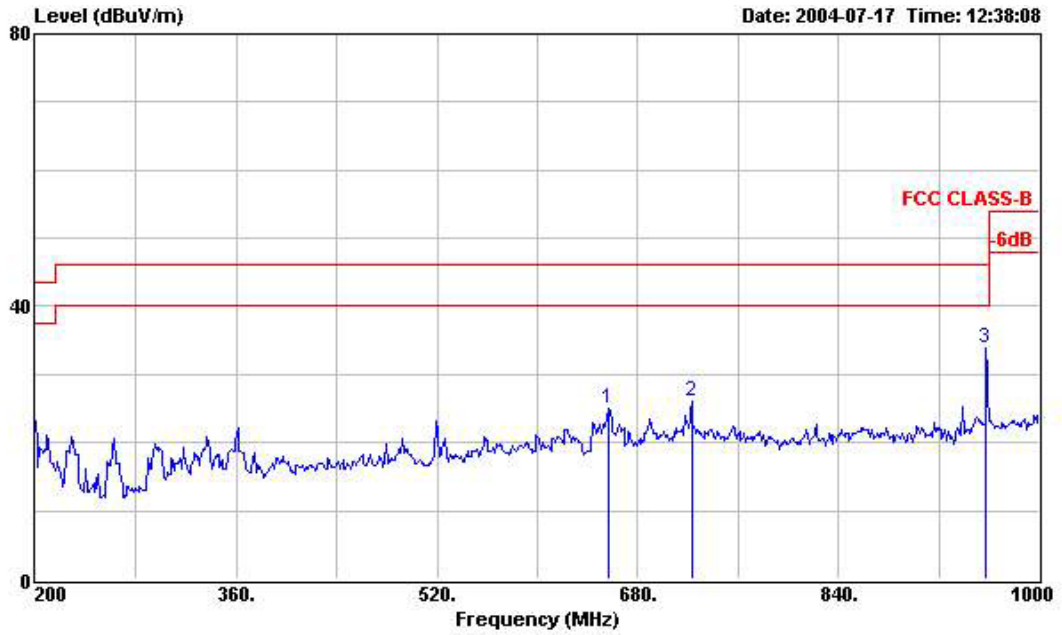
Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5180MHz

	Freq	Level	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB		cm	deg
1 @	15546.00	58.16	-15.84	74.00	43.28	45.59	9.41	Peak	---	---
2 @	15546.00	47.54	-6.46	54.00	43.28	45.59	9.41	Average	---	---



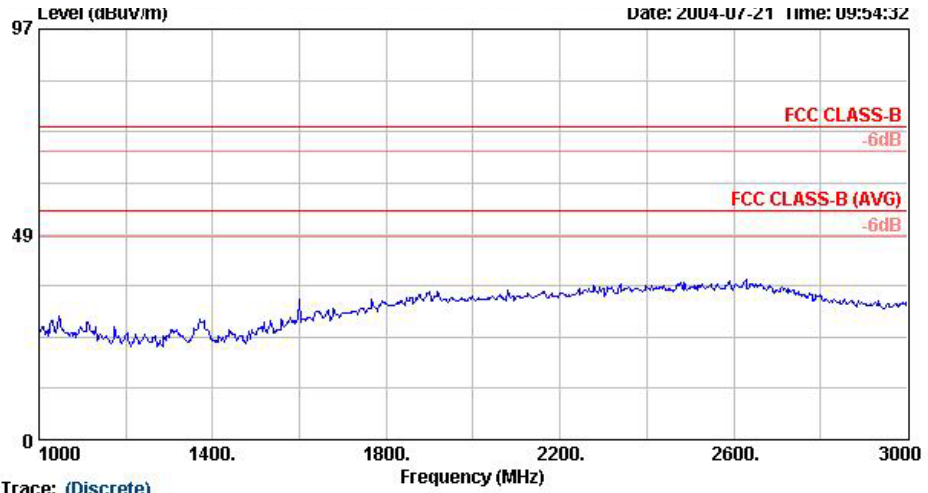
Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11a TX 5180MHz
 : WS2000

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	35.950	34.68	-5.32	40.00	48.95	12.73	1.03	28.03	Peak	100	324
2	71.310	32.11	-7.89	40.00	49.69	8.96	1.42	27.96	Peak	---	---
3	108.710	29.58	-13.92	43.50	45.25	10.35	1.86	27.88	Peak	---	---

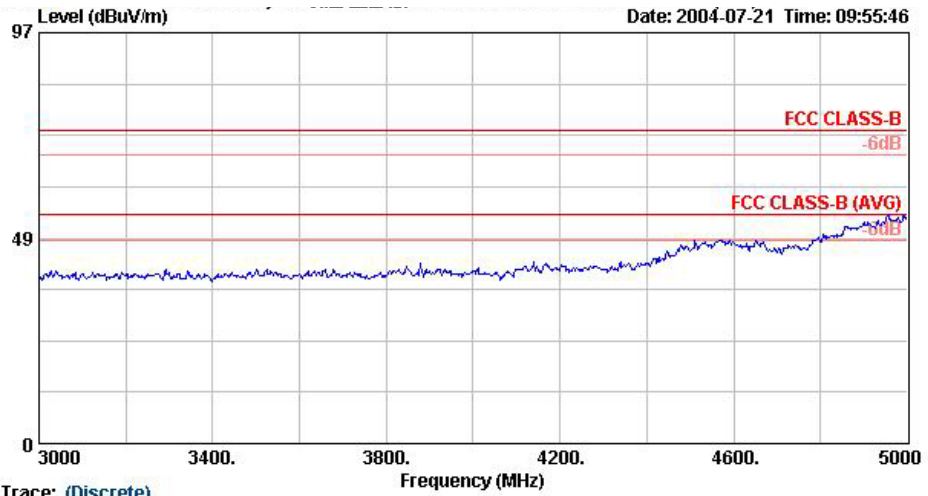


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP-5110
 Memo : 11a TX 5180MHz
 : WS2000

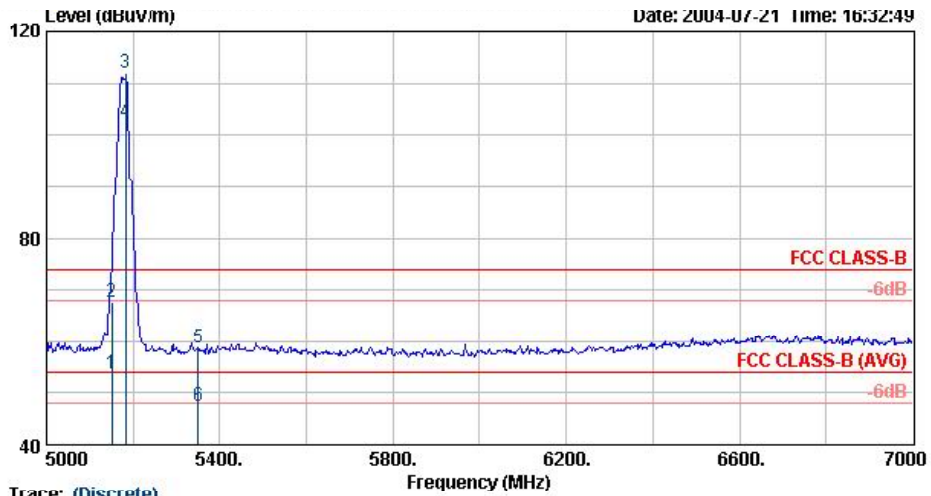
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	656.800	24.92	-21.08	46.00	30.09	18.93	4.64	28.74	Peak	---	---
2	723.200	26.14	-19.86	46.00	30.19	19.90	4.77	28.72	Peak	---	---
3	957.600	33.87	-12.13	46.00	34.56	21.90	5.65	28.24	Peak	---	---



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 : 802.11a TX 5180MHz



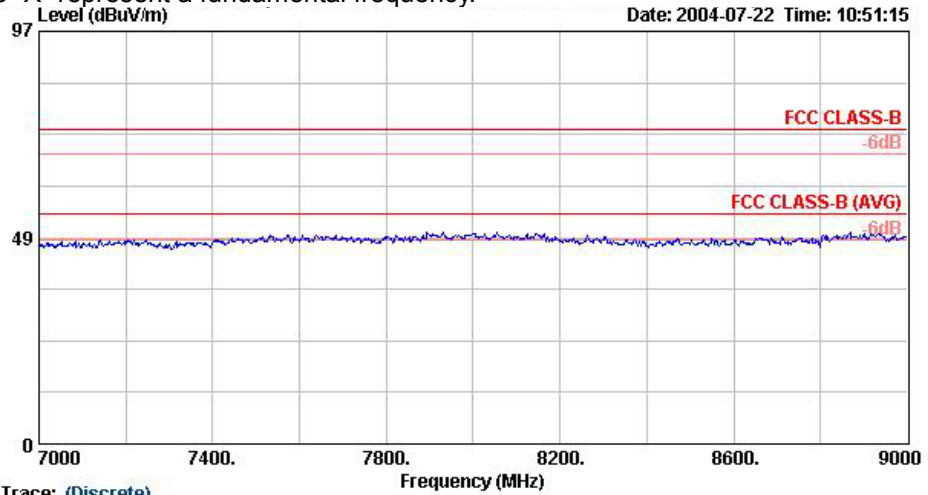
Trace: (Discrete)
Site : 03CH06
Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
EUT : 802.11a/b/g Access Point
Power : AC 120V / 60Hz
Model : WASP - 5110
Memo : 802.11a TX 5180MHz



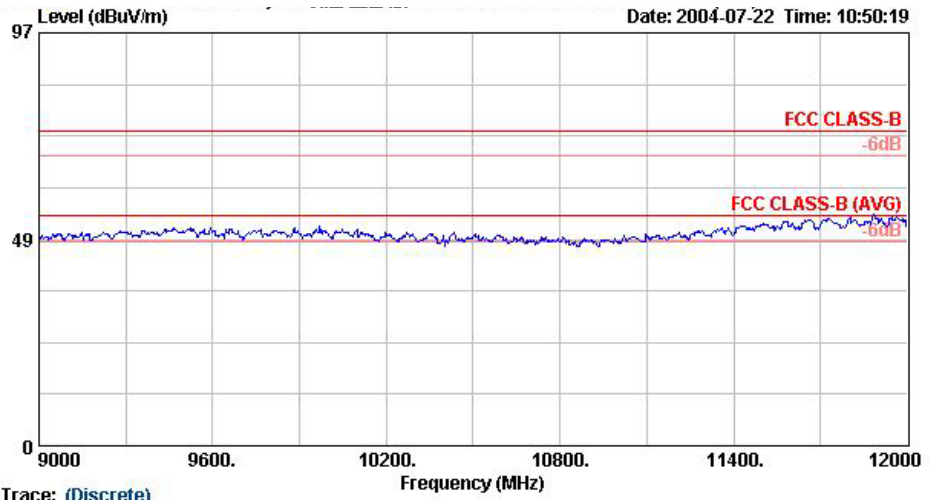
Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5180MHz

	Freq	Over Limit	Level	Limit	Antenna Line	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dB	dBuV/m	dBuV/m	dB/m	dB	dB		cm	deg
1 I	5150.00	-0.18	53.82	54.00	33.71	45.91	5.00	Average	---	---
2	5150.00	-6.26	67.74	74.00	33.71	45.91	5.00	Peak	---	---
3 X	5182.00		111.89		33.76	45.96	5.02	Peak	---	---
4 @	5182.00		102.41		33.76	45.96	5.02	Average	---	---
5	5350.00	-15.39	58.61	74.00	33.99	46.19	5.14	Peak	---	---
6	5350.00	-6.59	47.41	54.00	33.99	46.19	5.14	Average	---	---

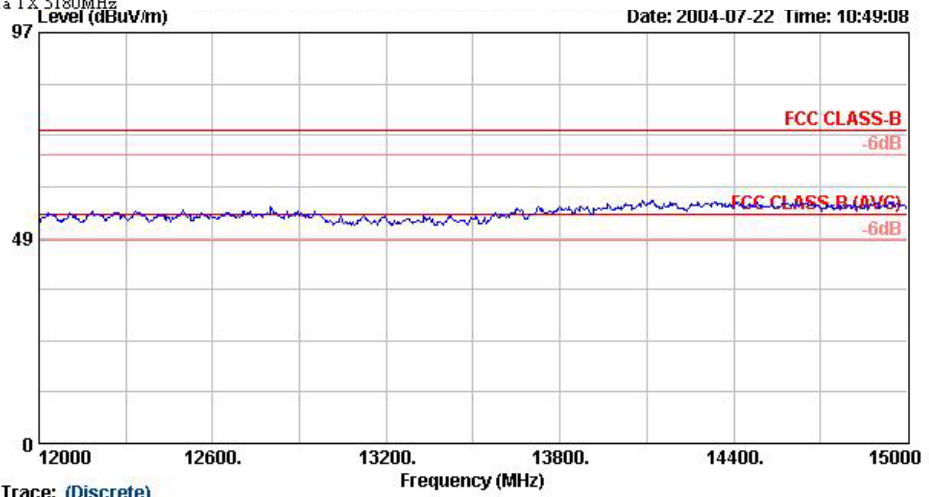
Remark: The "X" represent a fundamental frequency.



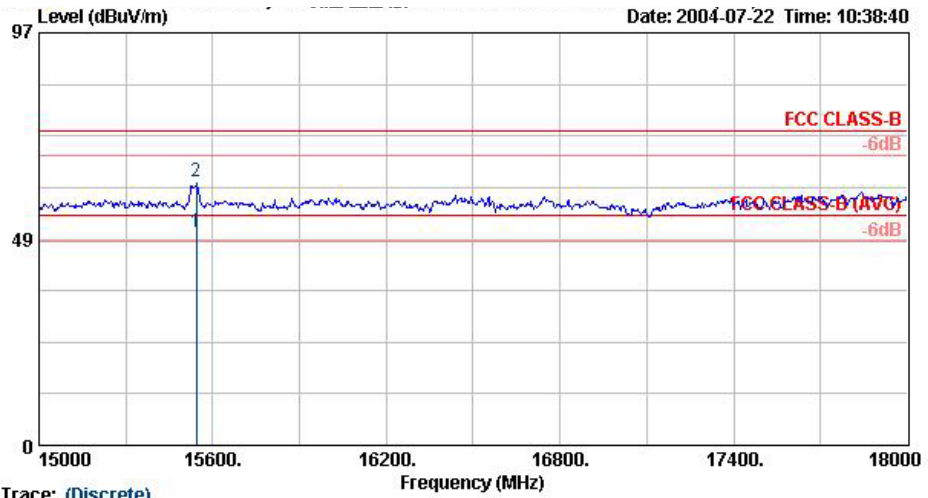
Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5180MHz



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 : 802.11a TX 5180MHz



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
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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 - S110
 Memo : 802.11a TX 5180MHz

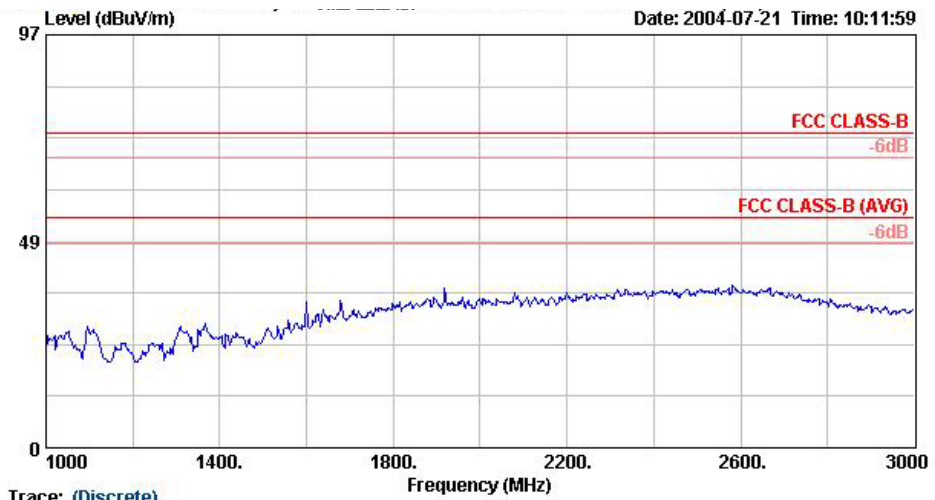
	Freq	Level	Over	Limit	Antenna	Preamp	Cable		Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	Remark	Pos	Pos
									cm	deg
1 @	15544.00	49.96	-4.04	54.00	43.28	45.59	9.41	Average	0	0
2 @	15544.00	61.86	-12.14	74.00	43.28	45.59	9.41	Peak	0	0

Remark: Frequency from 18GHz to 40GHz, the emission emitted by the EUT is too low to be measured.

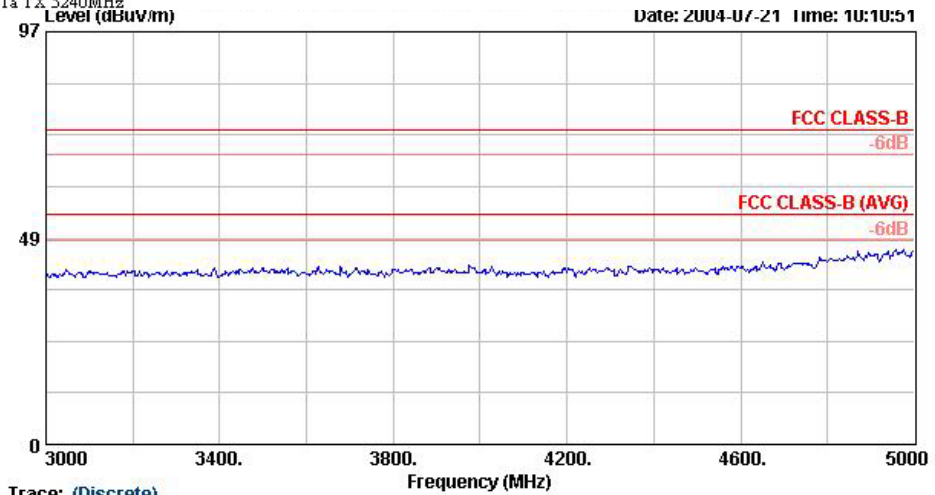
Test Engineer : Jones Tsai
 Jones Tsai

- Test Mode: 802.11a TX Frequency = 5240 MHz
- 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

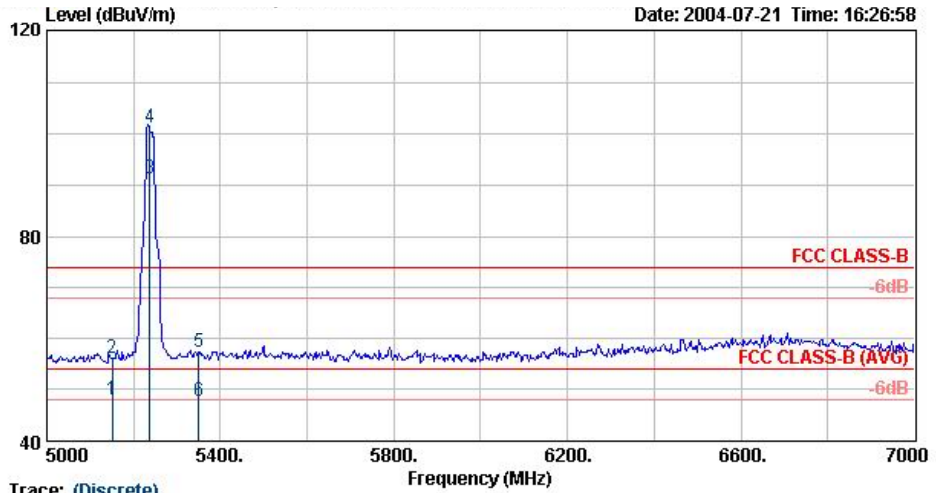
■ The test was passed at the minimum margin that marked by the frame in the following table



Trace: (Discrete)
 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 : 802.11a TX 5240MHz



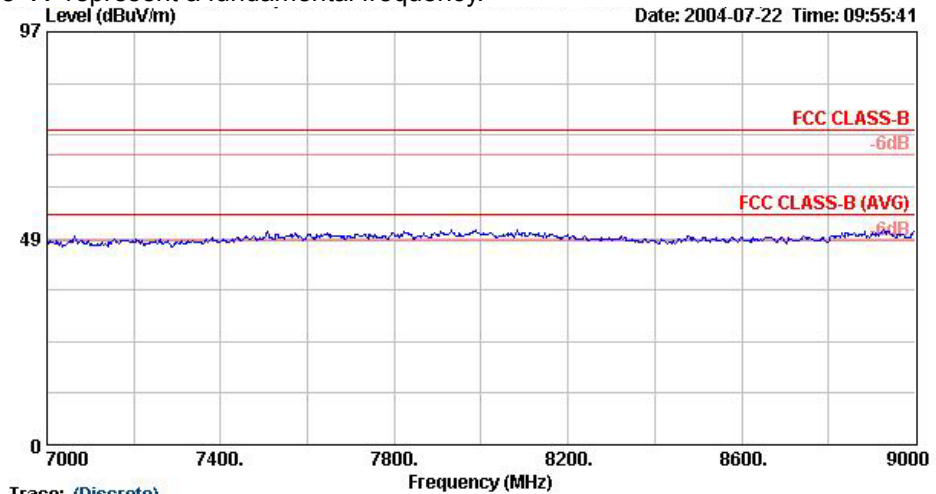
Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5240MHz



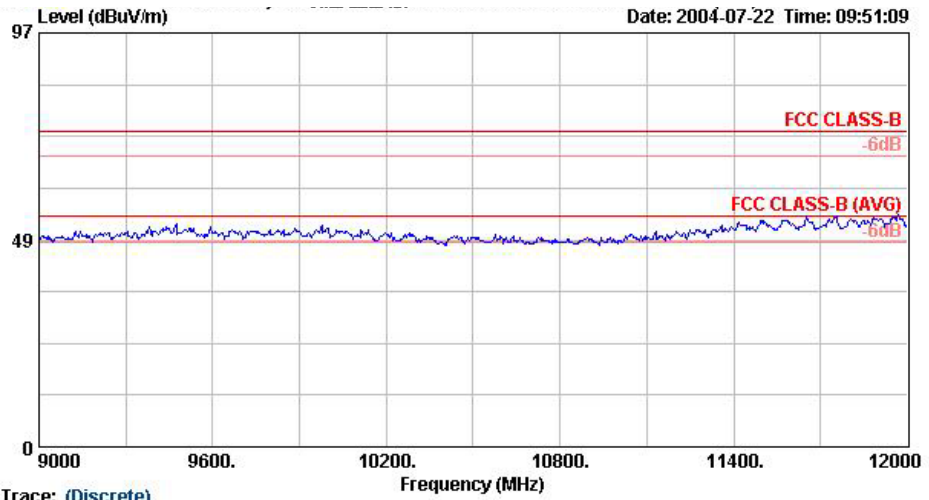
Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5240MHz

	Over	Limit	Antenna	Preamp	Cable	Remark	Ant	Table		
Trace	Freq	Level	Line	Factor	Loss		Pos	Pos		
	MHz	dB	dBuV/m	dBuV/m	dB/m	dB	cm	deg		
1	5150.00	-5.85	48.15	54.00	33.71	45.91	5.00	Average	0	0
2	5150.00	-17.94	56.06	74.00	33.71	45.91	5.00	Peak	---	---
3 X	5237.00		91.35		33.83	46.03	5.06	Average	0	0
4 X	5237.00		101.39		33.83	46.03	5.06	Peak	0	0
5	5350.00	-16.77	57.23	74.00	33.99	46.19	5.14	Peak	---	---
6	5350.00	-6.36	47.64	54.00	33.99	46.19	5.14	Average	0	0

Remark: The "X" represent a fundamental frequency.

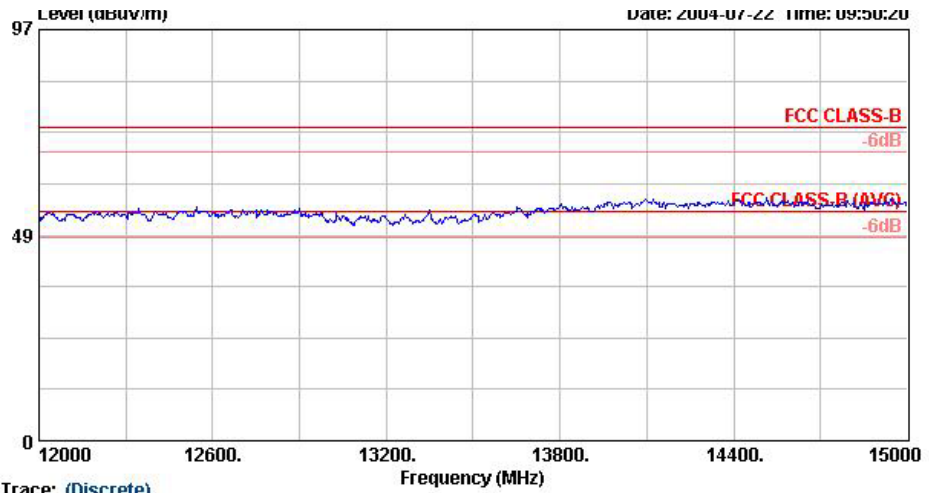


Trace: (Discrete)
 Site : 03CH06
 Condition : FCC CLASS-B 3m HF-HORN AH-118 HORIZONTAL
 EUT : 802.11a/b/g Access Point
 Power : AC 120V / 60Hz
 Model : WASP - 5110
 Memo : 802.11a TX 5240MHz



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