



Test Report

Product Name : Wireless LAN Access Point
Model No. : H3C WA2612-AGN, WL-607
FCC ID : O9C-WL607

Applicant : 3COM Corporation

Address : 350 Campus Drive, Marlborough, MA 01752-3064, USA

Date of Receipt : 2009/07/16
Issued Date : 2009/08/07
Report No. : 097S086R-ITUSP01V02
Report Version : V3.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP or any agency of the Government.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Test Report Certification

Issued Date : 2009/08/07

Report No. : 097S086R-ITUSP01V02



Product Name : Wireless LAN Access Point
Applicant : 3COM Corporation
Address : 350 Campus Drive, Marlborough, MA 01752-3064, USA
Manufacturer : 3COM Corporation
Address : 350 Campus Drive, Marlborough, MA 01752-3064, USA
Model No. : H3C WA2612-AGN, WL-607
Brand Name : H3C, 3COM
EUT Voltage : 48Vdc, 180mA (PoE Input)
Applicable Standard : FCC Part 15 Subpart B: 2008
ANSI C63.4: 2003
Test Result : Complied
Performed Location : SuZhou EMC laboratory
No.99 Hongye Rd., Suzhou Industrial Park Loufeng
Hi-Tech Development Zone., SuZhou, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Registration Number: 800392

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(Marlin Chen)

Approved By :

(Gene Chang)

Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	: BSMI, NCC, TAF
Germany	: TUV Rheinland
Norway	: Nemko, DNV
USA	: FCC, NVLAP
Japan	: VCCI

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/tw/emc/accreditations/accreditations.htm>
 The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>
 If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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 TEL : +86-512-6251-5088 / FAX : +86-512-6251-5098 E-Mail : service@quietek.com



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1. General Information

1.1. EUT Description

Product Name	Wireless LAN Access Point
Model No.	H3C WA2612-AGN, WL-607
Brand Name	H3C, 3COM

Component	
AC Adapter	Manufacturer: Zhonghan Electronics (Shenzhen) Co., Ltd. M/N: FSP025-1AD207A Input: 100-240V~, 0.7A, 50-60Hz Output: 48V, 0.52A MAX

Note: H3C WA2612-AGN is identical to 3COM WL-607 except model number and trade mark.
 For model H3C WA2612-AGN, trade mark is H3C and WL-607 with trade mark 3COM.

1.2. Mode of Operation

Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

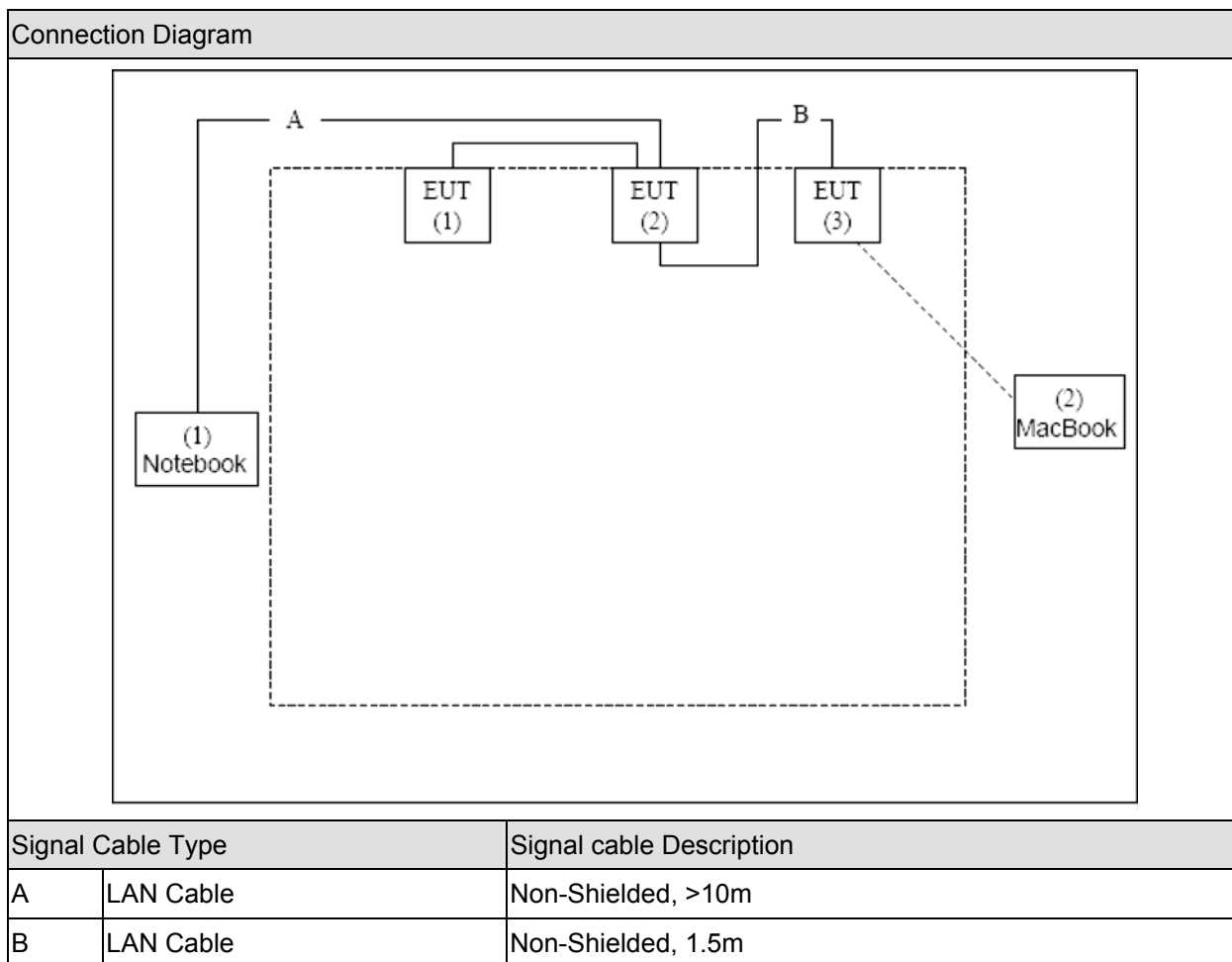
Final Test Mode
Mode 1: Normal Operation

1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	DELL	PP19L	JH097 A01	Power by adapter
2	MacBook	Apple	MB061CH	W8732B4TZ5V	Power by adapter

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	Notebook (2) communicates with Notebook (1) by wireless, using "Ping" function.

2. Technical Test

2.1. Summary of Test Result

- No deviations from the test standards
- Deviations from the test standards as below description:

Emission			
Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC Part 15 Subpart B: 2008 ANSI C63.4: 2003	Yes	No
Radiated Emission	FCC Part 15 Subpart B: 2008 ANSI C63.4: 2003	Yes	No

2.2. List of Test Equipment

Conducted Emission / SR-8

Instrument	Manufacturer	Model No.	Serial No.	Calibrated Date
EMI Test Receiver	R&S	ESCS 30	838251/001	2009/04/25
LISN	R&S	ESH3-Z5	836679/020	2009/02/18
LISN	R&S	ENV216	100097	2009/05/28
Pulse Limiter	R&S	ESH3-Z2	100324	2009/04/18

Radiated Emission / 9x6x6 Chamber

Instrument	Manufacturer	Model No.	Serial No.	Calibrated Date
Spectrum Analyzer	Agilent	E4408B	MY45102743	2009/08/12
Pre-Amplifier	QuieTek	AP-025C	CHM-071919	2008/11/12
Pre-Amplifier	QuieTek	AP-180C	CHM-071920	2009/08/04
Bilog Antenna	Schaffner	CBL6112B	2905	2009/08/04
Horn Antenna	Schwarzbeck	9120D	576	2008/10/21

2.3. Measurement Uncertainty

Conducted Emission
The maximum measurement uncertainty is evaluated as $\pm 2.26\text{dB}$.
Radiated Emission
The maximum measurement uncertainty is evaluated as $\pm 3.19\text{dB}$.

2.4. Test Environment

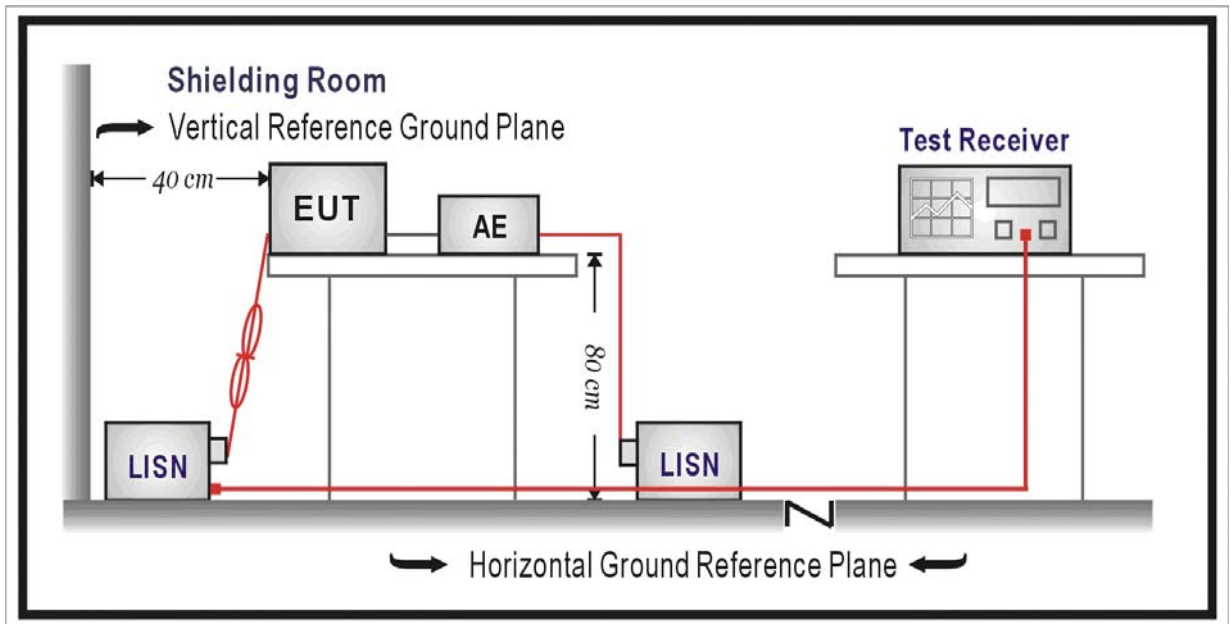
Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000
Radiated Emission	Temperature (°C)	15-35	25
	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

3.1. Test Specification

According to EMC Standard: FCC Part 15.107 Class B and ANSI C63.4

3.2. Test Setup



3.3. Limit

Limits for Conducted Emission of Class B ITE		
Frequency range MHz	Limits dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

NOTE: Decreases with the logarithm of the frequency.

3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50Ω / 50μH coupling impedance for the

measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50\Omega / 50\mu\text{H}$ coupling impedance with 50Ω termination. (Please refers to the block diagram of the test setup and photographs.)

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

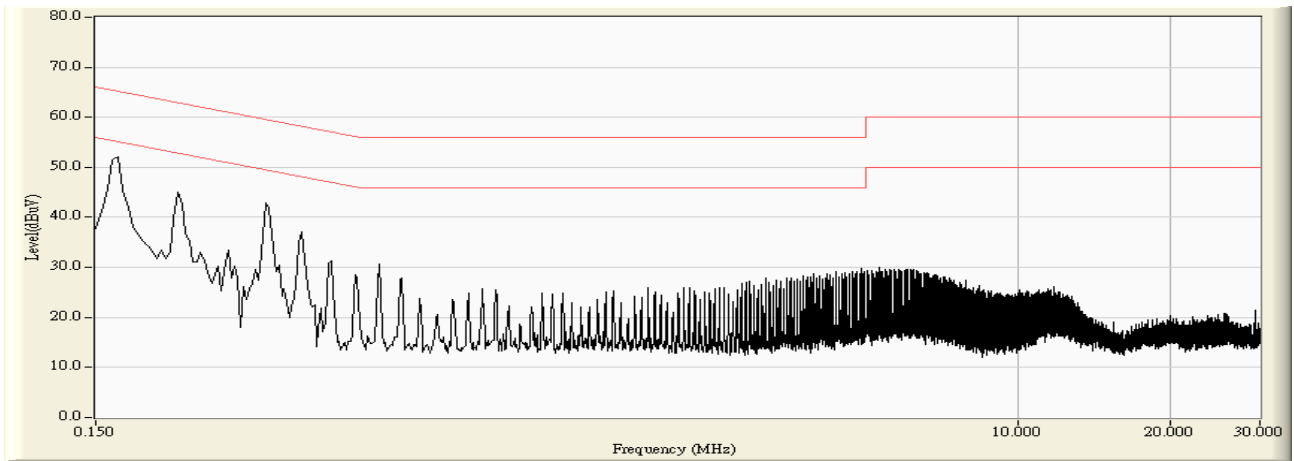
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Deviation from Test Standard

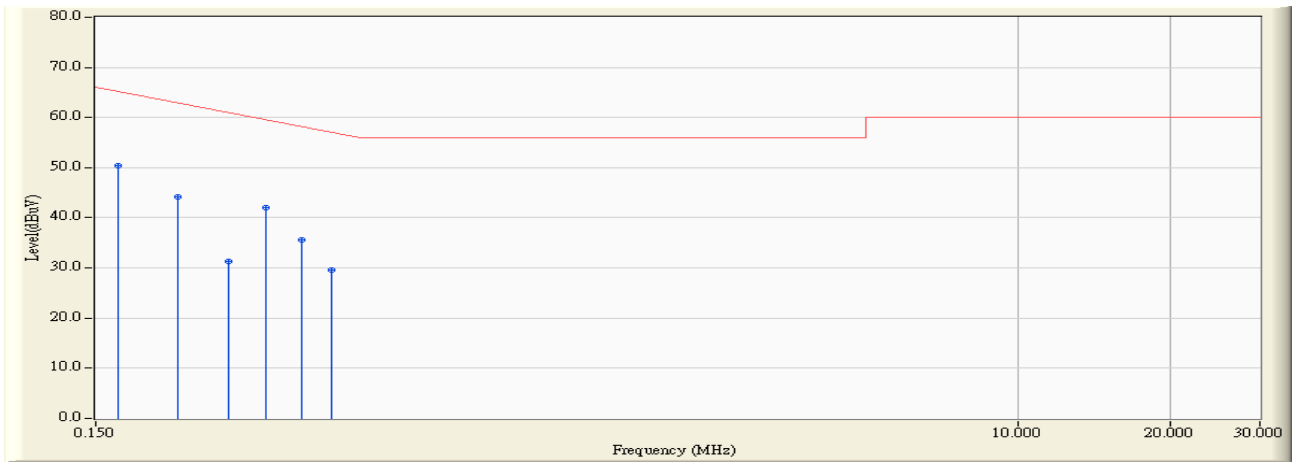
No deviation.

3.6. Test Result

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:43
Limit : FCC_Part15.107_B_00M_QP	Margin : 10
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation

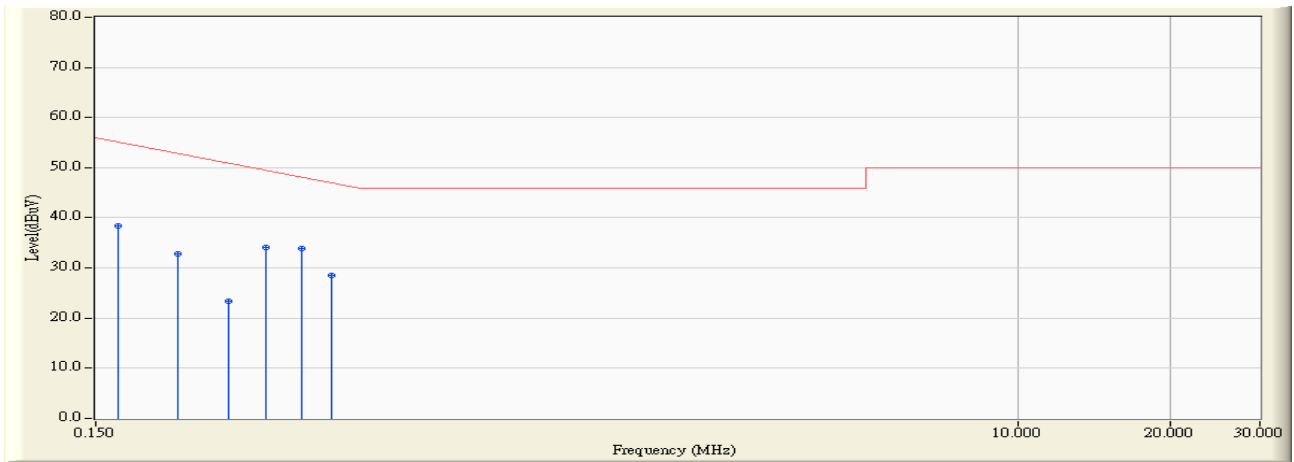


Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:45
Limit : FCC_Part15.107_B_00M_QP	Margin : 0
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



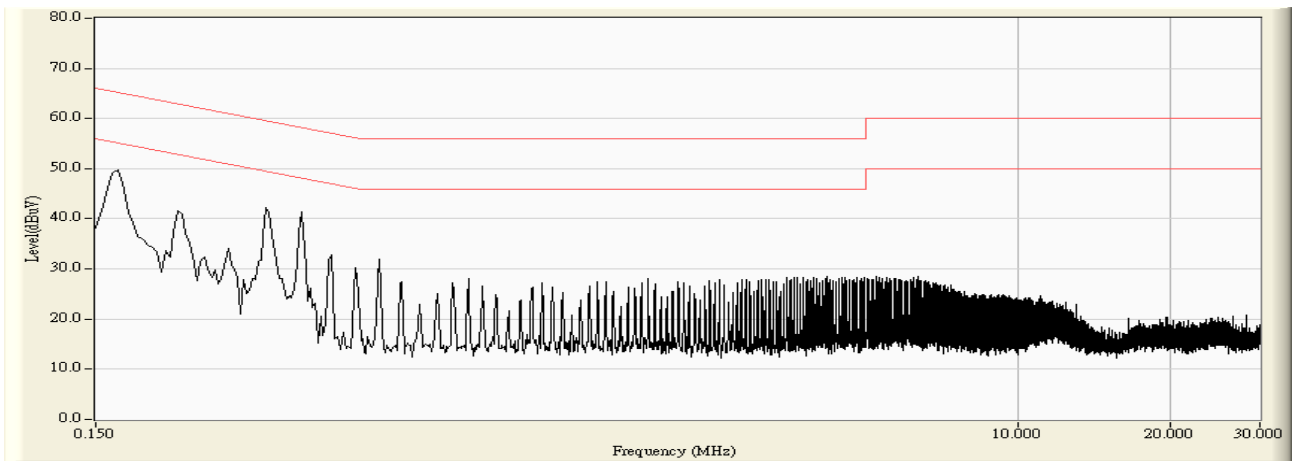
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.166	10.084	40.300	50.384	-14.774	65.158	QUASIPeAK
2		0.218	9.446	34.800	44.246	-18.649	62.895	QUASIPeAK
3		0.274	9.477	21.900	31.377	-29.619	60.996	QUASIPeAK
4		0.326	9.511	32.500	42.011	-17.541	59.552	QUASIPeAK
5		0.382	9.549	26.100	35.649	-22.587	58.236	QUASIPeAK
6		0.438	9.586	20.000	29.586	-27.514	57.100	QUASIPeAK

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:45
Limit : FCC_Part15.107_B_00M_AV	Margin : 0
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation

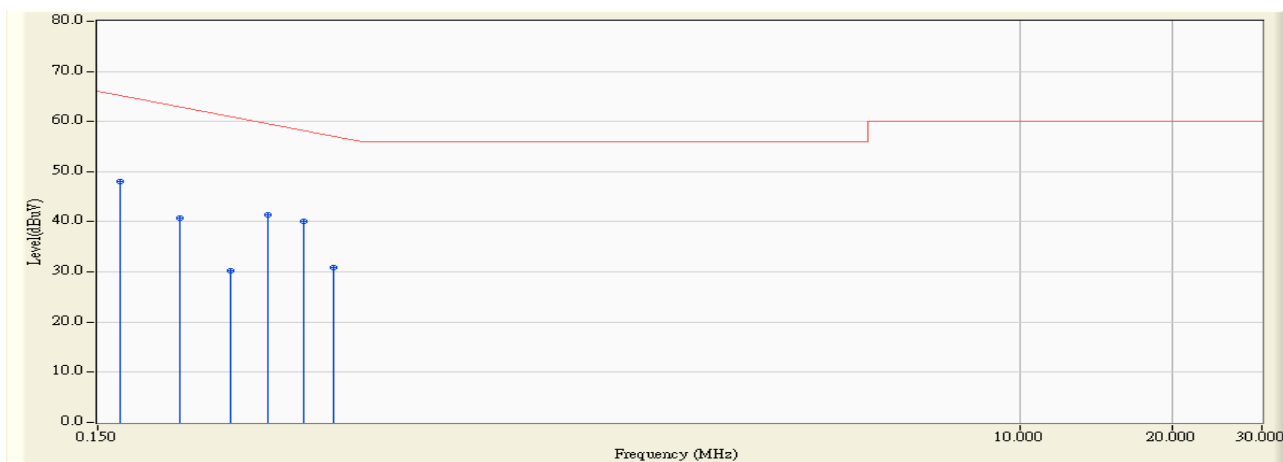


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	10.084	28.300	38.384	-16.774	55.158	AVERAGE
2		0.218	9.446	23.300	32.746	-20.149	52.895	AVERAGE
3		0.274	9.477	13.800	23.277	-27.719	50.996	AVERAGE
4		0.326	9.511	24.600	34.111	-15.441	49.552	AVERAGE
5	*	0.382	9.549	24.300	33.849	-14.387	48.236	AVERAGE
6		0.438	9.586	18.900	28.486	-18.614	47.100	AVERAGE

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:39
Limit : FCC_Part15.107_B_00M_QP	Margin : 10
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation

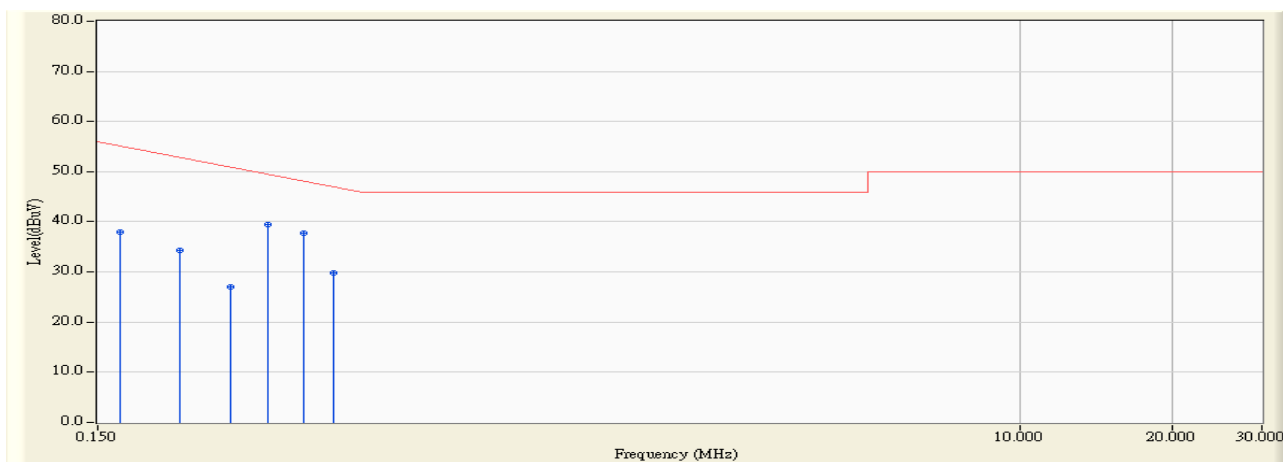


Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:41
Limit : FCC_Part15.107_B_00M_QP	Margin : 0
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.952	38.000	47.952	-17.206	65.158	QUASIPeAK
2		0.218	9.584	31.200	40.784	-22.111	62.895	QUASIPeAK
3		0.274	9.588	20.600	30.188	-30.808	60.996	QUASIPeAK
4	*	0.326	9.590	31.900	41.490	-18.062	59.552	QUASIPeAK
5		0.382	9.600	30.600	40.200	-18.036	58.236	QUASIPeAK
6		0.438	9.613	21.300	30.913	-26.187	57.100	QUASIPeAK

Engineer : Jame	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	Time : 2009/07/23 - 16:41
Limit : FCC_Part15.107_B_00M_AV	Margin : 0
EUT : Wireless LAN Access Point	Probe : ENV216_100014(0.009-30MHz) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.952	28.000	37.952	-17.206	55.158	AVERAGE
2		0.218	9.584	24.800	34.384	-18.511	52.895	AVERAGE
3		0.274	9.588	17.500	27.088	-23.908	50.996	AVERAGE
4	*	0.326	9.590	29.900	39.490	-10.062	49.552	AVERAGE
5		0.382	9.600	28.100	37.700	-10.536	48.236	AVERAGE
6		0.438	9.613	20.300	29.913	-17.187	47.100	AVERAGE

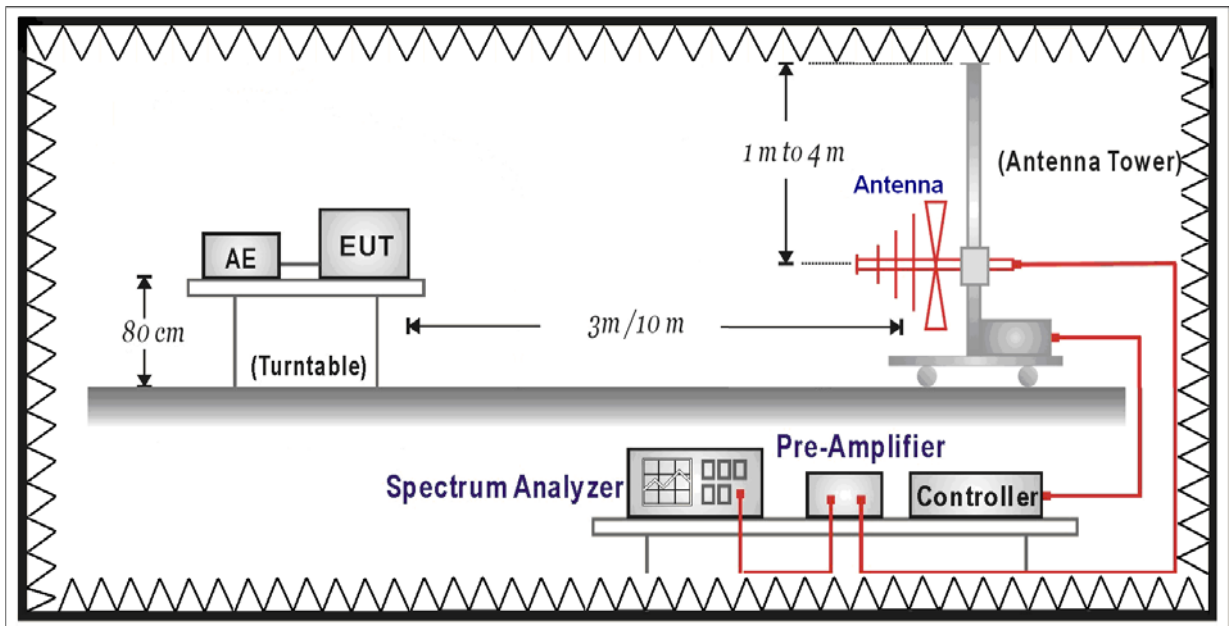
4. Radiated Emission

4.1. Test Specification

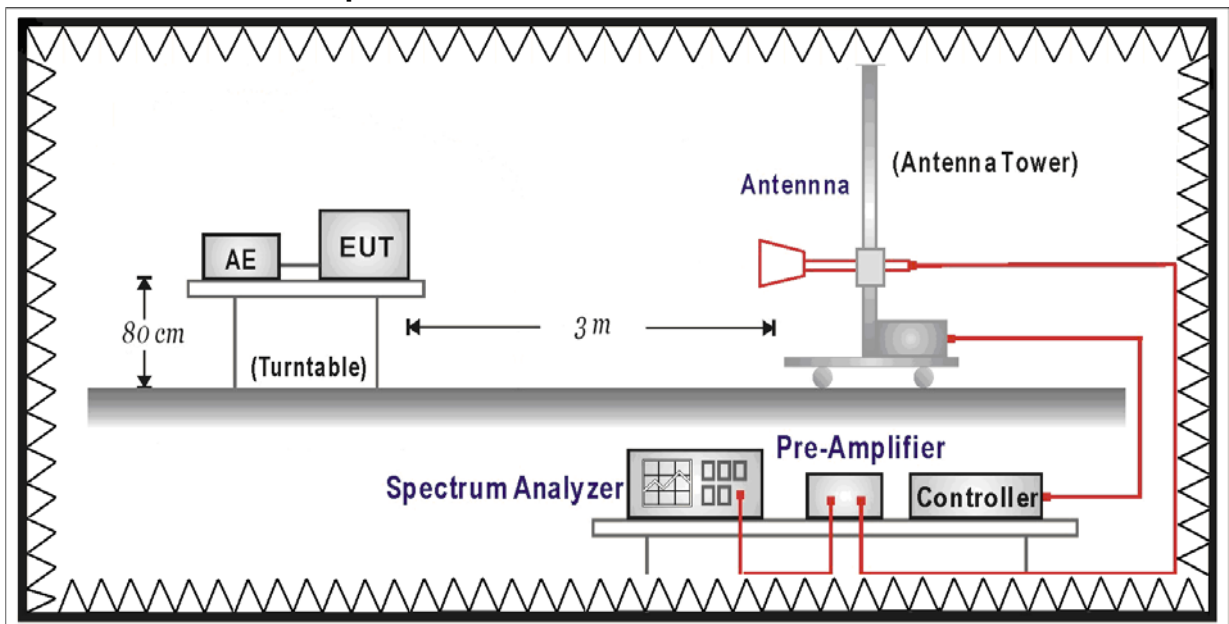
According to EMC Standard: FCC Part 15.109 Class B and ANSI C63.4

4.2. Test Setup

Below 1GHz Test Setup



Above 1GHz Test Setup



4.3. Limit

Limits for Radiated Emission of class B ITE at a measuring distance of 3m	
Frequency of Emission (MHz)	Field Strength dB(μV/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54

NOTE: The lower limit shall apply at the transition frequency.

4.4. Test Procedure

The EUT and its simulators are placed on a turntable which is 0.8 meter above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be changed during radiated measurement.

The bandwidth below 1GHz setting on the receiver is 120 kHz and above 1GHz is 1MHz.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1000
108 to 500	2000
500 to 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

On any frequency or frequencies below or equal to 1000MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000MHz, the radiated limits shown are based measuring equipment employing an average detector function.

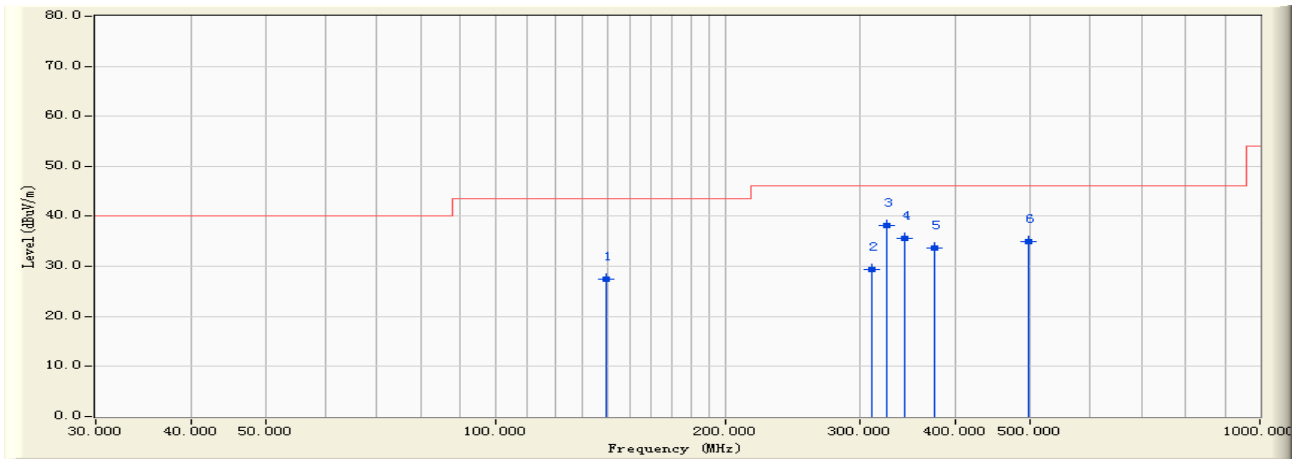
When average radiated emission measurement are included emission measurement Above 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

4.5. Deviation from Test Standard

No deviation.

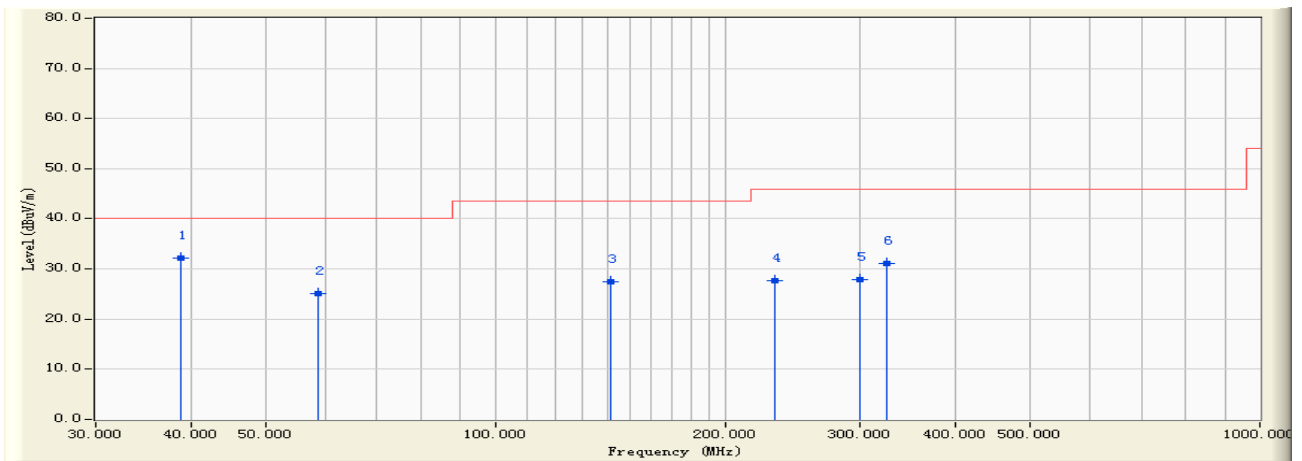
4.6. Test Result

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 10:34
Limit : FCC_Part15.109_B_03M_QP	Margin : 0
EUT : Wireless LAN Access Point	Probe : CBL6112D_27611(30-1000MHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



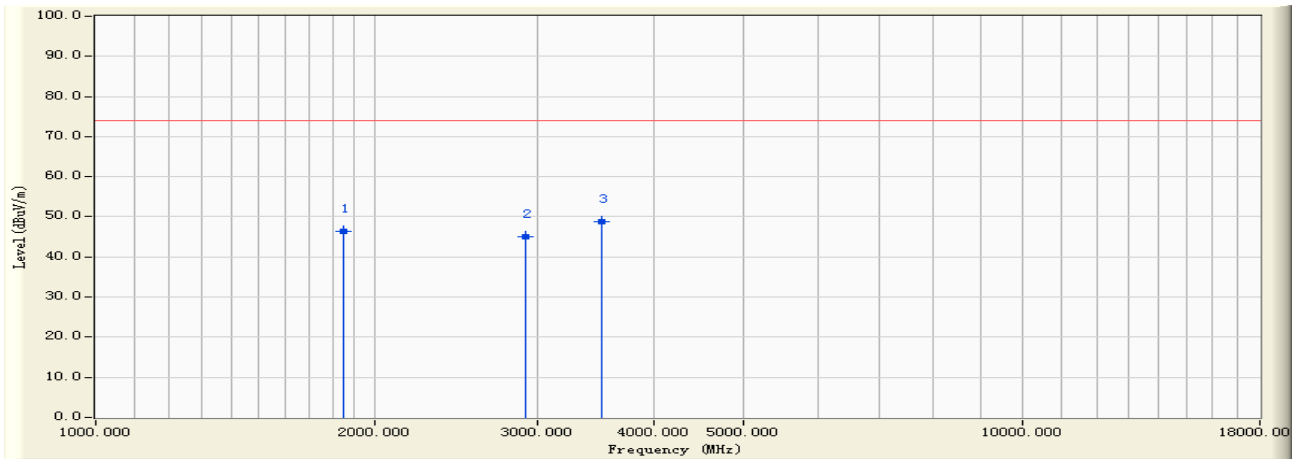
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	139.400	11.781	15.600	27.382	-16.138	43.520	QUASIPeAK	100.000	150.00
2	310.500	14.700	14.620	29.320	-16.700	46.020	QUASIPeAK	100.000	132.00
3	* 325.050	15.010	23.100	38.110	-7.910	46.020	QUASIPeAK	100.000	42.000
4	343.680	15.531	20.100	35.631	-10.389	46.020	QUASIPeAK	100.000	84.000
5	375.800	16.360	17.260	33.620	-12.400	46.020	QUASIPeAK	102.000	120.00
6	498.200	18.857	16.140	34.997	-11.023	46.020	QUASIPeAK	100.000	246.00

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 10:44
Limit : FCC_Part15.109_B_03M_QP	Margin : 0
EUT : Wireless LAN Access Point	Probe : CBL6112D_27611(30-1000MHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



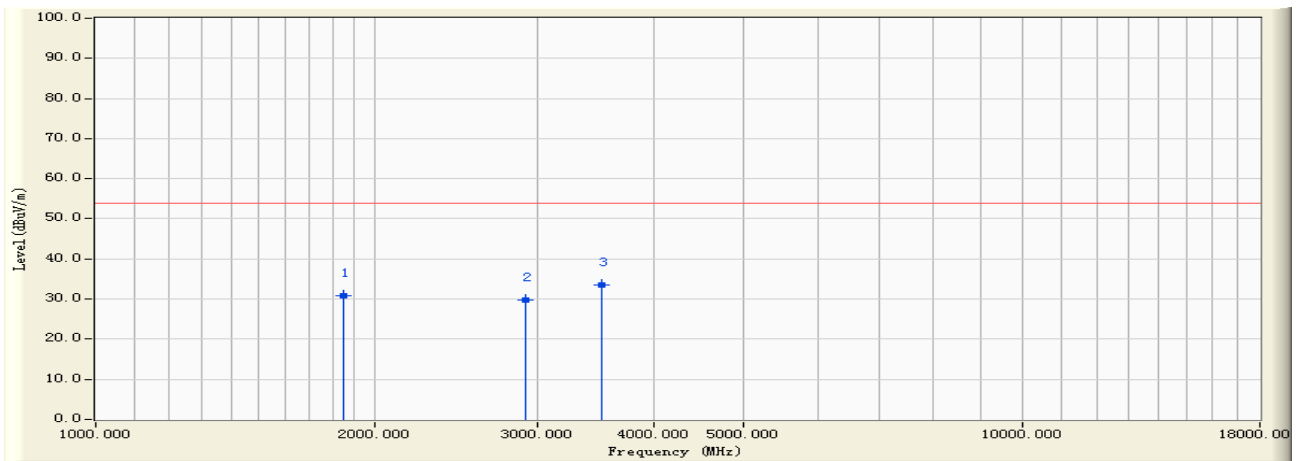
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	38.800	13.446	18.700	32.146	-7.854	40.000	QUASIPeAK	100.00	342.00
2		58.620	6.474	18.600	25.075	-14.925	40.000	QUASIPeAK	100.00	130.00
3		141.700	11.591	15.800	27.391	-16.109	43.500	QUASIPeAK	100.00	36.000
4		232.330	11.000	16.700	27.700	-18.300	46.000	QUASIPeAK	100.00	98.000
5		299.200	14.302	13.500	27.802	-18.198	46.000	QUASIPeAK	100.00	320.00
6		325.080	15.010	16.100	31.110	-14.890	46.000	QUASIPeAK	100.00	210.00

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 11:12
Limit : FCC_Part15.109_B_(Above_1G)_3M_PK	Margin : 0
EUT : Wireless LAN Access Point	Probe : 9120D_499(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



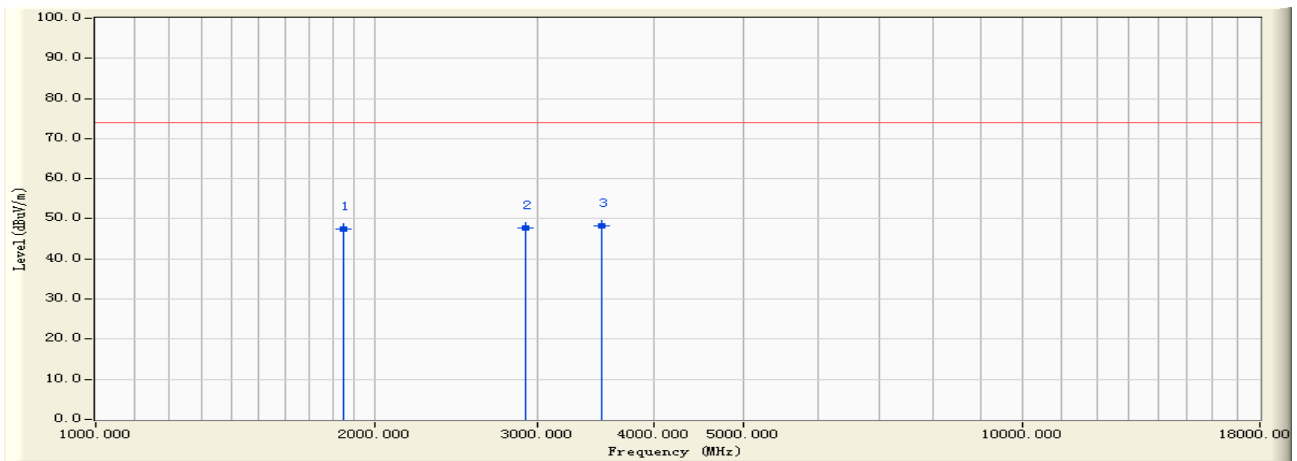
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1850.000	-6.460	52.708	46.248	-27.752	74.000	PEAK	100.00	163.00
2	2912.500	-1.520	46.597	45.077	-28.923	74.000	PEAK	100.00	81.000
3	* 3507.500	-0.650	49.342	48.692	-25.308	74.000	PEAK	100.00	106.00

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 11:12
Limit : FCC_Part15.109_B_(Above_1G)_3M_AV	Margin : 0
EUT : Wireless LAN Access Point	Probe : 9120D_499(1-18GHz) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



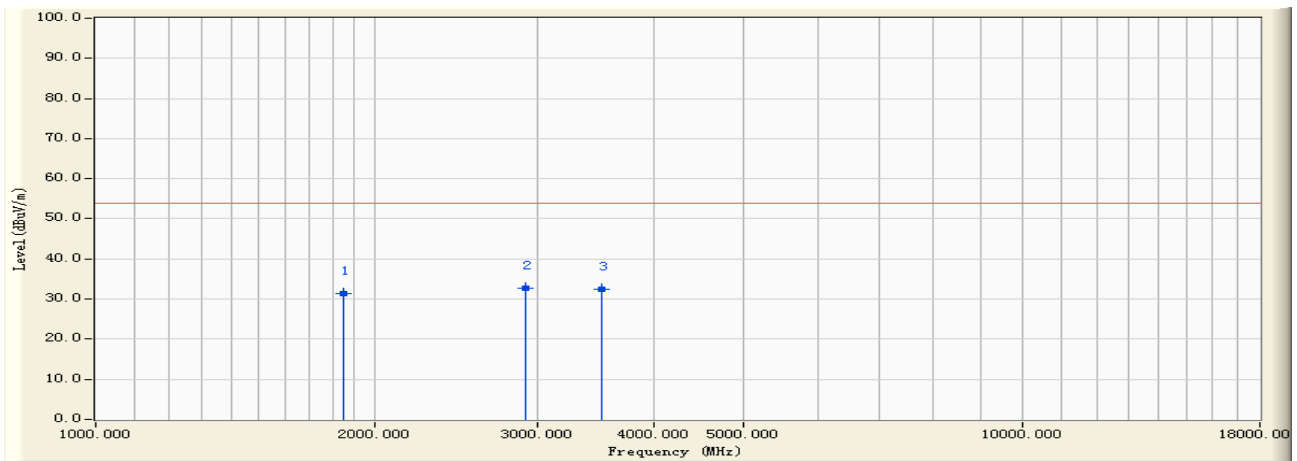
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1850.000	-6.460	37.200	30.740	-23.260	54.000	AVERAGE	100.00	163.00
2	2912.500	-1.520	31.260	29.740	-24.260	54.000	AVERAGE	100.00	81.000
3	* 3507.500	-0.650	34.030	33.380	-20.620	54.000	AVERAGE	100.00	106.00

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 11:09
Limit : FCC_Part15.109_B_(Above_1G)_3M_PK	Margin : 0
EUT : Wireless LAN Access Point	Probe : 9120D_499(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1850.000	-6.460	53.997	47.537	-26.463	74.000	PEAK	100.00	162.00
2	2912.500	-1.520	49.318	47.798	-26.202	74.000	PEAK	100.00	82.000
3	* 3507.500	-0.650	48.785	48.135	-25.865	74.000	PEAK	100.00	108.00

Engineer : Jame	
Site : AC 2 (3m Semi-anechoic Chamber)	Time : 2009/07/25 - 11:09
Limit : FCC_Part15.109_B_(Above_1G)_3M_AV	Margin : 0
EUT : Wireless LAN Access Point	Probe : 9120D_499(1-18GHz) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Normal Operation



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	1850.000	-6.460	37.770	31.310	-22.690	54.000	AVERAGE	100.00	162.00
2	* 2912.000	-1.522	34.360	32.838	-21.162	54.000	AVERAGE	100.00	82.000
3	3507.500	-0.650	33.150	32.500	-21.500	54.000	AVERAGE	100.00	108.00