



# FCC TEST REPORT

**REPORT NO.:** RF900815R10

**MODEL NO.:** WP210P

**RECEIVED:** August 15, 2001

**TESTED:** August 18~ August 30, 2001

**APPLICANT:** Prime Electronics & Satellitics Inc.

**ADDRESS:** No. 69, Tung Yuan Rd., Chung Li Industrial Park,  
Chung Li City, Taoyuan,  
Taiwan, R.O.C.

**ISSUED BY:** Advance Data Technology Corporation

**LAB LOCATION:** 47 14th Lin, Chiapau Tsun, Linko, Taipei,  
Taiwan, R.O.C.

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0528



Lab Code: 200102-0



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## 1 CERTIFICATION

**PRODUCT :** Wireless LAN 11Mbps PC Card  
**BRAND NAME :** PESI  
**MODEL NO. :** WP210P  
**APPLICANT :** Prime Electronics & Satellitics Inc.  
**STANDARDS :** 47 CFR Part 15, Subpart C (Section 15.247),  
ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from August 18, 2001 to August 30, 2001, The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

TESTED BY : Gary Chang , DATE: Sep. 4, 2001  
                                Gary Chang

CHECKED BY : Emily Lu , DATE: Sep 4, 2001  
                                Emily Lu

APPROVED BY : Alan Lane , DATE: Sept. 4, 2001  
                                Dr. Alan Lane, Manager



## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

<b>APPLIED STANDARD: 47 CFR Part 15, Subpart C</b>			
<b>Standard Section</b>	<b>Test Type and Limit</b>	<b>Result</b>	<b>REMARK</b>
15.107	AC Power Conducted Emission Limit: 48dBuV	PASS	Meet the requirement of limit Minimum passing margin is -6.51dBuV at 2.712MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247(c)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is -2.10dBuV at 2037.80MHz
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
15.247(c)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Wireless LAN 11Mbps PC Card
<b>MODEL NO.</b>	WP210P
<b>POWER SUPPLY</b>	3.3VDC from notebook
<b>MODULATION TYPE</b>	CCK, BPSK, QPSK
<b>RADIO TECHNOLOGY</b>	DSSS
<b>TRANSFER RATE</b>	1/2/5.5/11Mbps
<b>FREQUENCY RANGE</b>	2412MHz ~ 2462MHz
<b>NUMBER OF CHANNEL</b>	11
<b>OUTPUT POWER</b>	14dBm
<b>ANTENNA TYPE</b>	Ceramic antenna, Printed antenna, Patch antenna
<b>DATA CABLE</b>	NA
<b>I/O PORTS</b>	NA
<b>ASSOCIATED DEVICES</b>	NA

**NOTE:** For a more detailed features description, please refer to the manufacturer's specifications or User's Manual.



### 3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided in this EUT.

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

**NOTE:**

1. Below 1 GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test.
2. Above 1 GHz, the channel 1, 6, and 11 were tested individually.
3. There are three antenna types provided in this EUT. Test result (A) is for Ceramic antenna, (B) is for Printed antenna and (C) is for Patch antenna.

### 3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless LAN 11Mbps PC Card. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC CFR 47 Part 15, Subpart C. (15.247)**  
**ANSI C63.4 : 1992**

All tests have been performed and recorded as per the above standards.

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



### 3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	IBM	ThinkPad 380XD	97-84L54	FCC DoC Approved
2	PRINTER	HP	2225C+	3123S97230	DSI6XU2225
3	MODEM	ACEEX	1414	980020510	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
3	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.

**NOTE:** All power cords of the above support units are non shielded (1.8m).





## 4 TEST TYPES AND RESULTS

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.45 – 30	48	-

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. All emanations from a class B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS30	834115/016	Feb. 21, 2002
ROHDE & SCHWARZ Artificial Mains Network (For EUT)	ESH2-Z5	892107/003	July 10, 2002
ROHDE & SCHWARZ 4-wire ISN	ENY41	838119/028	Dec. 12, 2001
ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/018	Dec. 3, 2001
EMCO L.I.S.N. (For peripherals)	3825/2	9504-2359	July 10, 2002
Software	Cond-V2J	NA	NA
RF cable (JYEBAO)	RG-58A/U	Cable-C03.01	July 11, 2002
Terminator (For EMCO LISN)	NA	E1-01-300	Feb. 20, 2002
Terminator (For EMCO LISN)	NA	E1-01-301	Feb. 20, 2002
Shielded Room	Site 3	ADT-C03	NA
VCCI Site Registration No.	Site 3	C-274	NA

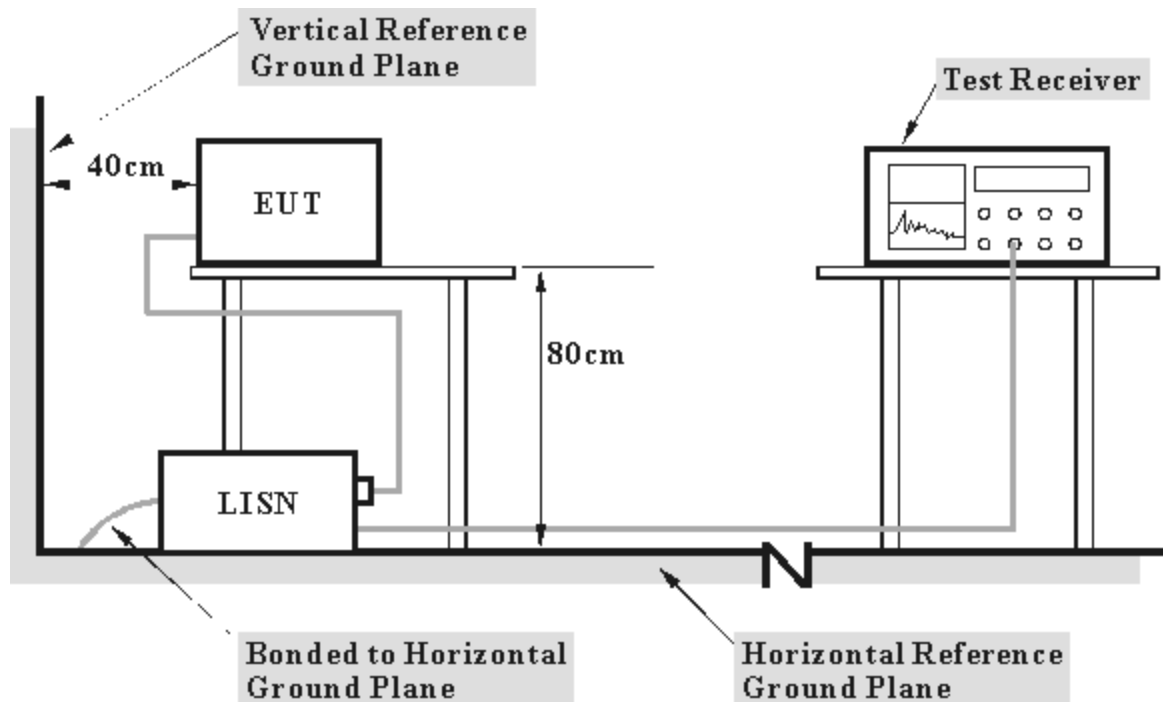
**NOTE:**

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. "\*" = These equipments are used for the final measurement.

#### 4.1.3 TEST PROCEDURES

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 450 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

#### 4.1.4 TEST SETUP



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

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.



#### 4.1.5 EUT OPERATING CONDITIONS

- a. Connected the EUT to a computer system placed on a testing table.
- b. The computer system ran a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency.
- c. The computer system sent "H" messages to its screen.
- d. The computer system sent "H" messages to modem.
- e. The computer system sent "H" messages to printer, and the printer prints them on paper.



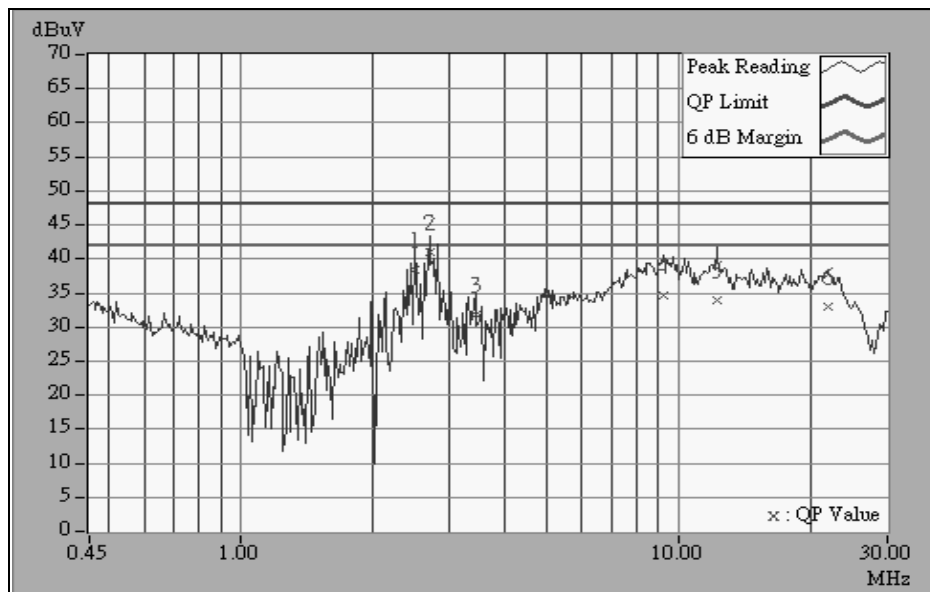
4.1.6 TEST RESULTS(A)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.499	0.22	38.32	-	38.54	-	48.00	-	-9.46	-
2	2.706	0.24	41.07	-	41.31	-	48.00	-	-6.69	-
3	3.438	0.27	31.86	-	32.13	-	48.00	-	-15.87	-
4	9.199	0.39	34.65	-	35.04	-	48.00	-	-12.96	-
5	12.204	0.44	34.01	-	34.45	-	48.00	-	-13.55	-
6	22.063	0.56	32.96	-	33.52	-	48.00	-	-14.48	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



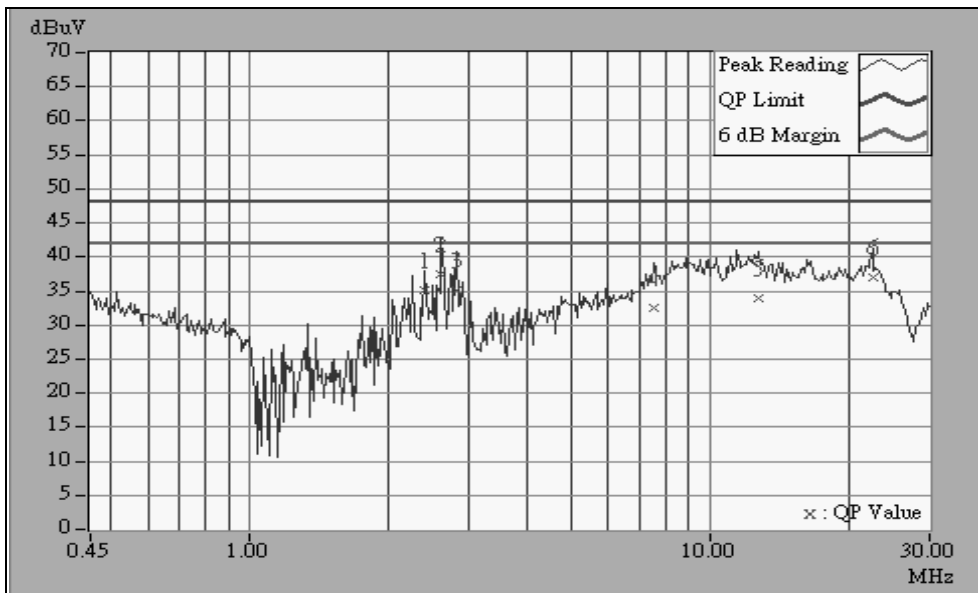


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.398	0.22	35.10	-	35.32	-	48.00	-	-12.68	-
2	2.600	0.23	37.55	-	37.78	-	48.00	-	-10.22	-
3	2.802	0.24	35.03	-	35.27	-	48.00	-	-12.73	-
4	7.559	0.36	32.57	-	32.93	-	48.00	-	-15.07	-
5	12.758	0.51	33.96	-	34.47	-	48.00	-	-13.53	-
6	22.570	0.95	37.09	-	38.04	-	48.00	-	-9.96	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



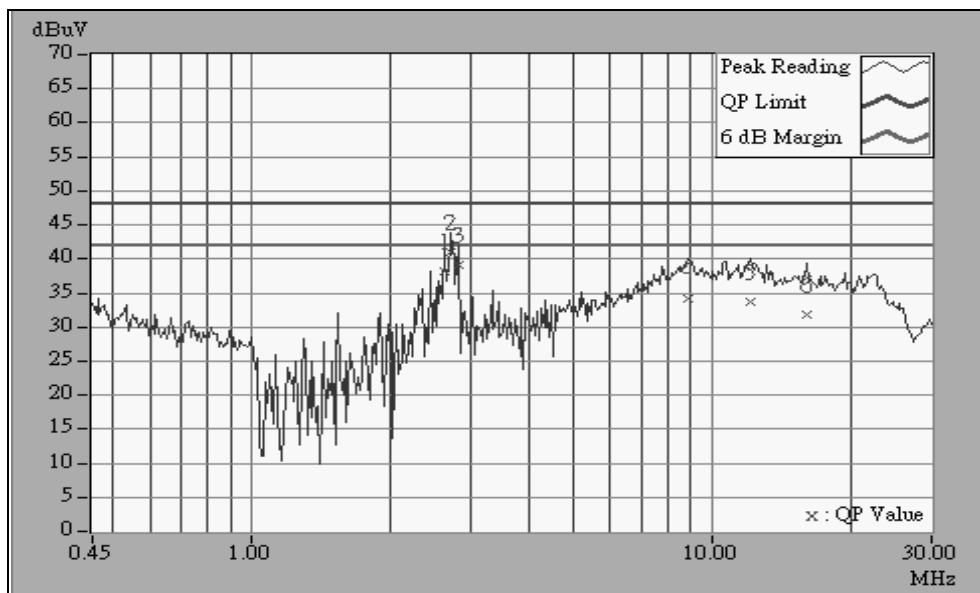


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.614	0.23	38.07	-	38.30	-	48.00	-	-9.70	-
2	2.710	0.24	41.09	-	41.33	-	48.00	-	-6.67	-
3	2.815	0.24	39.22	-	39.46	-	48.00	-	-8.54	-
4	8.895	0.38	34.19	-	34.57	-	48.00	-	-13.43	-
5	12.133	0.44	33.78	-	34.22	-	48.00	-	-13.78	-
6	16.020	0.52	31.91	-	32.43	-	48.00	-	-15.57	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



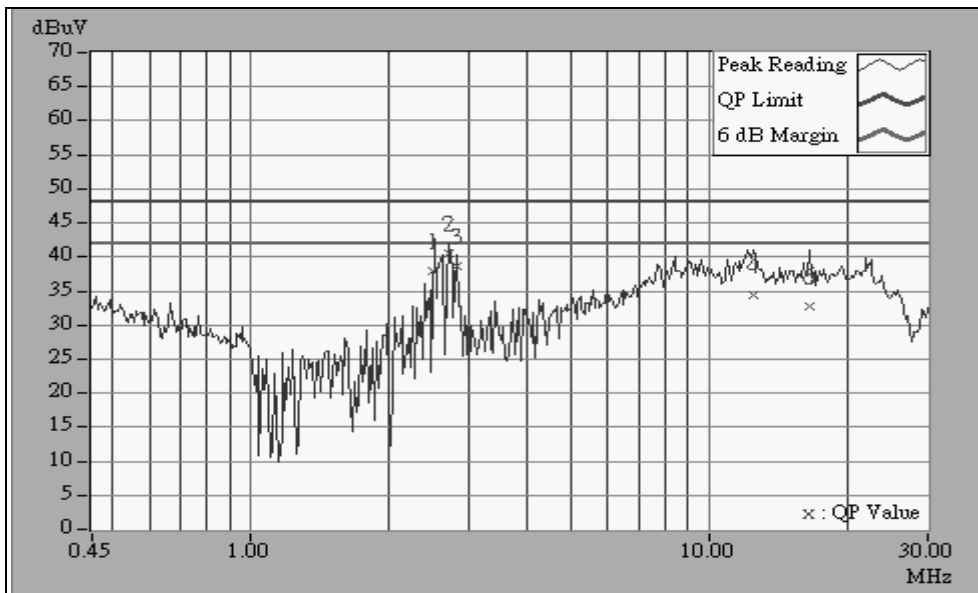


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (Uv)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.503	0.23	37.98	-	38.21	-	48.00	-	-9.79	-
2	2.714	0.24	40.55	-	40.79	-	48.00	-	-7.21	-
3	2.816	0.24	38.73	-	38.97	-	48.00	-	-9.03	-
4	12.456	0.50	34.44	-	34.94	-	48.00	-	-13.06	-
5	16.515	0.69	32.76	-	33.45	-	48.00	-	-14.55	-
6	16.515	0.69	32.82	-	33.51	-	48.00	-	-14.49	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



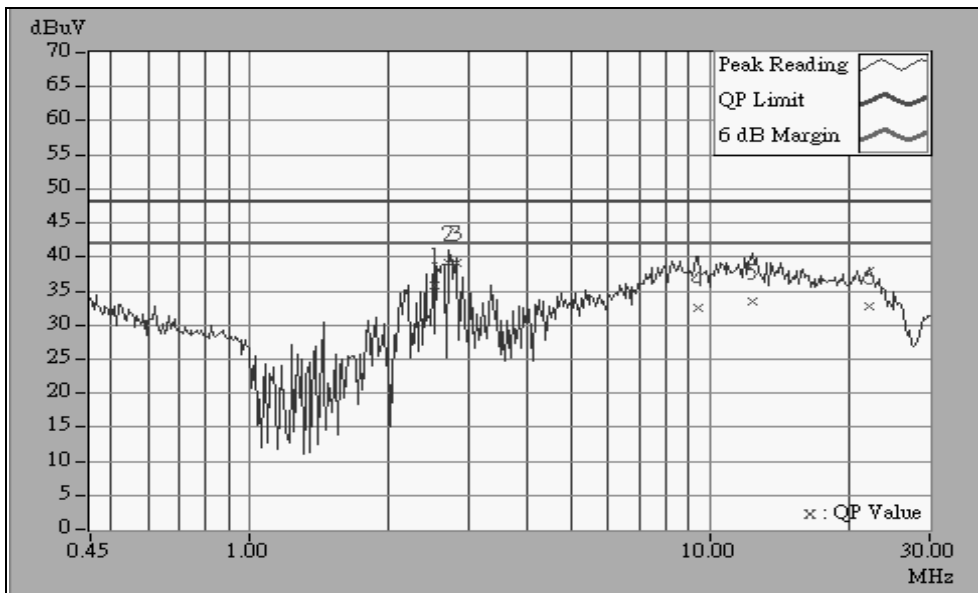


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.512	0.23	35.88	-	36.11	-	48.00	-	-11.89	-
2	2.710	0.24	39.22	-	39.46	-	48.00	-	-8.54	-
3	2.816	0.24	39.09	-	39.33	-	48.00	-	-8.67	-
4	9.387	0.39	32.51	-	32.90	-	48.00	-	-15.10	-
5	12.355	0.45	33.50	-	33.95	-	48.00	-	-14.05	-
6	22.266	0.55	32.76	-	33.31	-	48.00	-	-14.69	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.





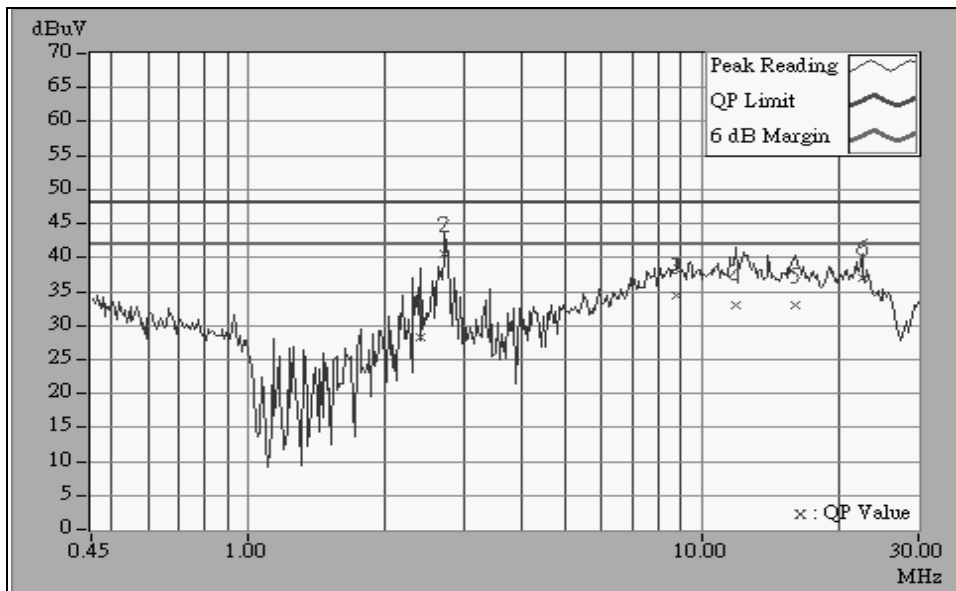


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Netural (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.391	0.22	28.31	-	28.53	-	48.00	-	-19.47	-
2	2.710	0.24	40.63	-	40.87	-	48.00	-	-7.13	-
3	8.809	0.38	34.47	-	34.85	-	48.00	-	-13.15	-
4	11.876	0.48	33.10	-	33.58	-	48.00	-	-14.42	-
5	16.031	0.66	32.94	-	33.60	-	48.00	-	-14.40	-
6	22.570	0.95	37.09	-	38.04	-	48.00	-	-9.96	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.





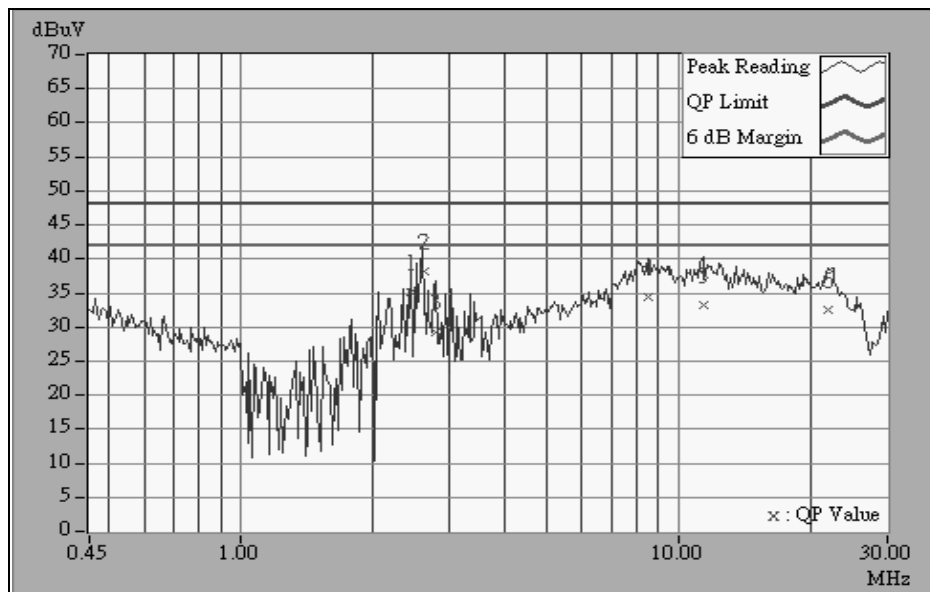
4.1.7 TEST RESULTS(B)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.452	0.22	35.20	-	35.42	-	48.00	-	-12.58	-
2	2.615	0.23	38.09	-	38.32	-	48.00	-	-9.68	-
3	2.773	0.24	29.14	-	29.38	-	48.00	-	-18.62	-
4	8.484	0.37	34.30	-	34.67	-	48.00	-	-13.33	-
5	11.418	0.43	33.21	-	33.64	-	48.00	-	-14.36	-
6	22.027	0.56	32.60	-	33.16	-	48.00	-	-14.84	-

**NOTE:**

1. QP. and AV. are abbreviations of quasi-peak and average individually.
2. "-": NA
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Emission Level = Reading Value + Correction Factor.



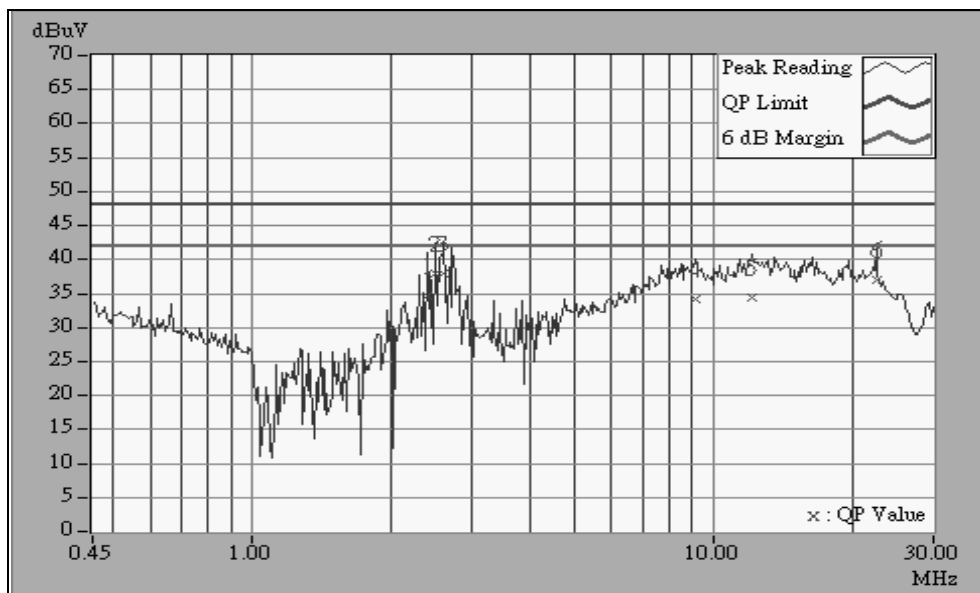


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.402	0.22	34.74	-	34.96	-	48.00	-	-13.04	-
2	2.503	0.23	38.06	-	38.29	-	48.00	-	-9.71	-
3	2.607	0.23	37.85	-	38.08	-	48.00	-	-9.92	-
4	9.125	0.39	34.16	-	34.55	-	48.00	-	-13.45	-
5	12.129	0.49	34.43	-	34.92	-	48.00	-	-13.08	-
6	22.569	0.95	37.01	-	37.96	-	48.00	-	-10.04	-

**NOTE:**

- 6. QP. and AV. are abbreviations of quasi-peak and average individually.
- 7. "-": NA
- 8. The emission levels of other frequencies were very low against the limit.
- 9. Margin value = Emission level - Limit value
- 10. Emission Level = Reading Value + Correction Factor.



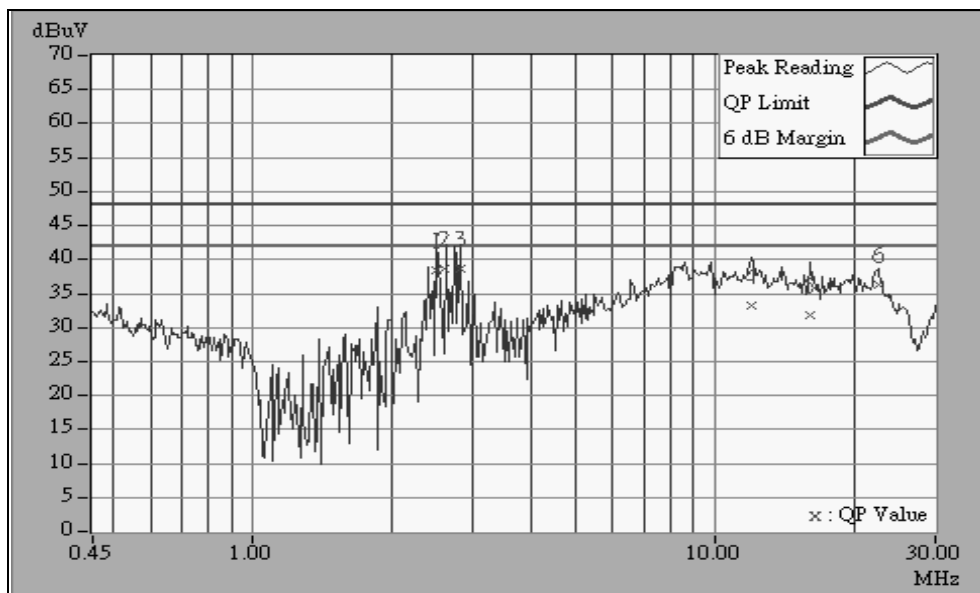


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.502	0.23	38.34	-	38.57	-	48.00	-	-9.43	-
2	2.606	0.23	38.71	-	38.94	-	48.00	-	-9.06	-
3	2.811	0.24	38.67	-	38.91	-	48.00	-	-9.09	-
4	11.941	0.44	33.28	-	33.72	-	48.00	-	-14.28	-
5	15.988	0.52	31.91	-	32.43	-	48.00	-	-15.57	-
6	22.570	0.55	36.38	-	36.93	-	48.00	-	-11.07	-

**NOTE:**

11. QP. and AV. are abbreviations of quasi-peak and average individually.
12. "-": NA
13. The emission levels of other frequencies were very low against the limit.
14. Margin value = Emission level - Limit value
15. Emission Level = Reading Value + Correction Factor.



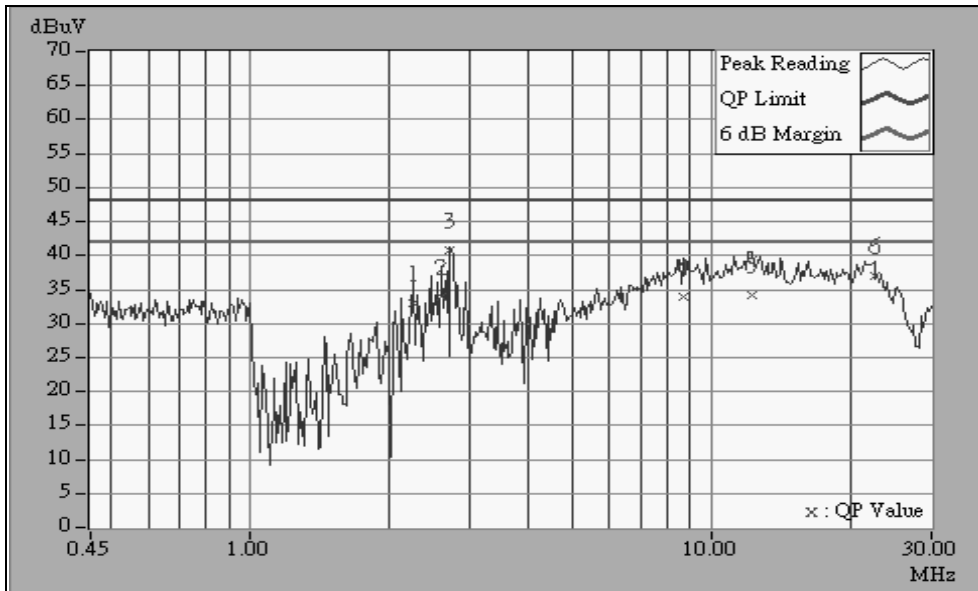


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (Uv)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.247	0.21	32.98	-	33.19	-	48.00	-	-14.81	-
2	2.602	0.23	33.97	-	34.20	-	48.00	-	-13.80	-
3	2.714	0.24	40.85	-	41.09	-	48.00	-	-6.91	-
4	8.732	0.38	33.99	-	34.37	-	48.00	-	-13.63	-
5	12.289	0.49	34.07	-	34.56	-	48.00	-	-13.44	-
6	22.570	0.95	37.11	-	38.06	-	48.00	-	-9.94	-

**NOTE:**

- 16. QP. and AV. are abbreviations of quasi-peak and average individually.
- 17. "-": NA
- 18. The emission levels of other frequencies were very low against the limit.
- 19. Margin value = Emission level - Limit value
- 20. Emission Level = Reading Value + Correction Factor.



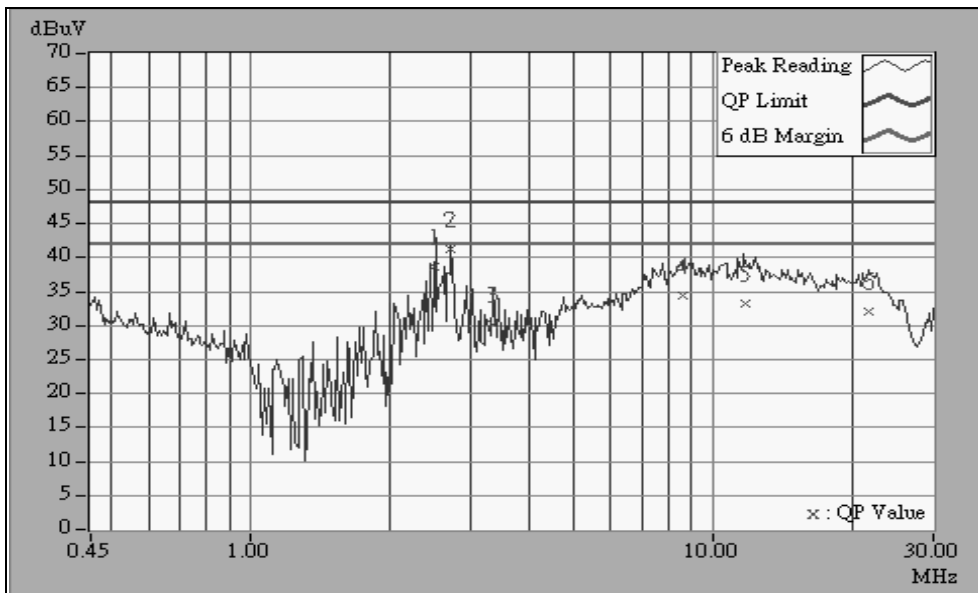


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.
1	2.504	0.23	38.57	-	38.80	-	48.00	-	-9.20	-
2	2.712	0.24	41.25	-	41.49	-	48.00	-	-6.51	-
3	3.344	0.27	30.12	-	30.39	-	48.00	-	-17.61	-
4	8.613	0.38	34.37	-	34.75	-	48.00	-	-13.25	-
5	11.710	0.43	33.34	-	33.77	-	48.00	-	-14.23	-
6	21.725	0.57	32.07	-	32.64	-	48.00	-	-15.36	-

**NOTE:**

21. QP. and AV. are abbreviations of quasi-peak and average individually.
22. "-": NA
23. The emission levels of other frequencies were very low against the limit.
24. Margin value = Emission level - Limit value
25. Emission Level = Reading Value + Correction Factor.



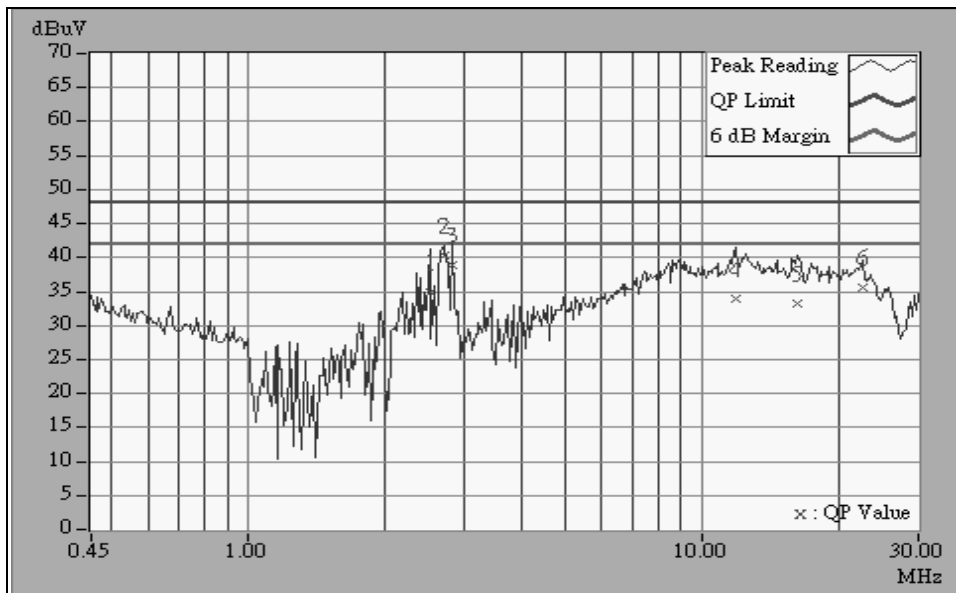


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Netural (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.512	0.23	34.99	-	35.22	-	48.00	-	-12.78	-
2	2.714	0.24	40.41	-	40.65	-	48.00	-	-7.35	-
3	2.815	0.24	38.91	-	39.15	-	48.00	-	-8.85	-
4	11.840	0.47	34.00	-	34.47	-	48.00	-	-13.53	-
5	16.238	0.67	33.31	-	33.98	-	48.00	-	-14.02	-
6	22.566	0.95	35.57	-	36.52	-	48.00	-	-11.48	-

**NOTE:**

- 26. QP. and AV. are abbreviations of quasi-peak and average individually.
- 27. "-": NA
- 28. The emission levels of other frequencies were very low against the limit.
- 29. Margin value = Emission level - Limit value
- 30. Emission Level = Reading Value + Correction Factor.





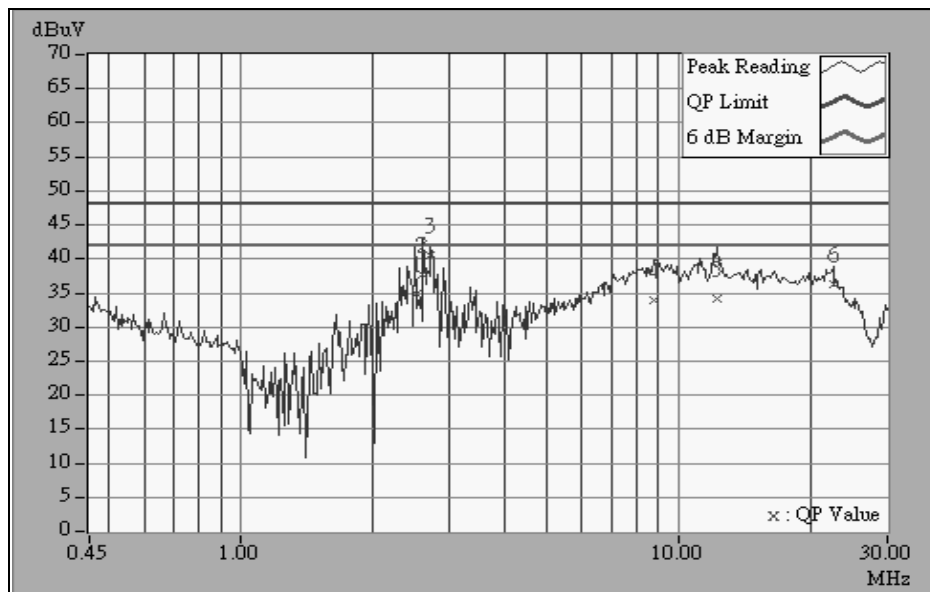
4.1.8 TEST RESULTS(C)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.509	0.23	34.77	-	35.00	-	48.00	-	-13.00	-
2	2.607	0.23	37.61	-	37.84	-	48.00	-	-10.16	-
3	2.715	0.24	40.51	-	40.75	-	48.00	-	-7.25	-
4	8.824	0.38	33.98	-	34.36	-	48.00	-	-13.64	-
5	12.238	0.44	34.09	-	34.53	-	48.00	-	-13.47	-
6	22.570	0.55	36.38	-	36.93	-	48.00	-	-11.07	-

**NOTE:**

- 31. QP. and AV. are abbreviations of quasi-peak and average individually.
- 32. "-": NA
- 33. The emission levels of other frequencies were very low against the limit.
- 34. Margin value = Emission level - Limit value
- 35. Emission Level = Reading Value + Correction Factor.





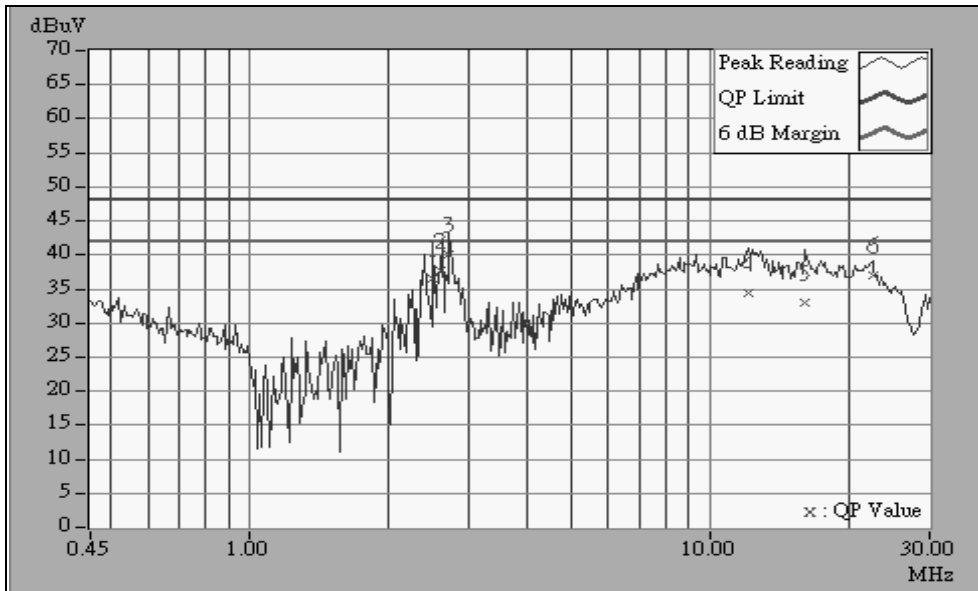


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.500	0.23	36.49	-	36.72	-	48.00	-	-11.28	-
2	2.608	0.23	37.71	-	37.94	-	48.00	-	-10.06	-
3	2.708	0.24	40.17	-	40.41	-	48.00	-	-7.59	-
4	12.129	0.49	34.45	-	34.94	-	48.00	-	-13.06	-
5	16.043	0.66	32.90	-	33.56	-	48.00	-	-14.44	-
6	22.570	0.95	36.93	-	37.88	-	48.00	-	-10.12	-

**NOTE:**

- 36. QP. and AV. are abbreviations of quasi-peak and average individually.
- 37. "-": NA
- 38. The emission levels of other frequencies were very low against the limit.
- 39. Margin value = Emission level - Limit value
- 40. Emission Level = Reading Value + Correction Factor.



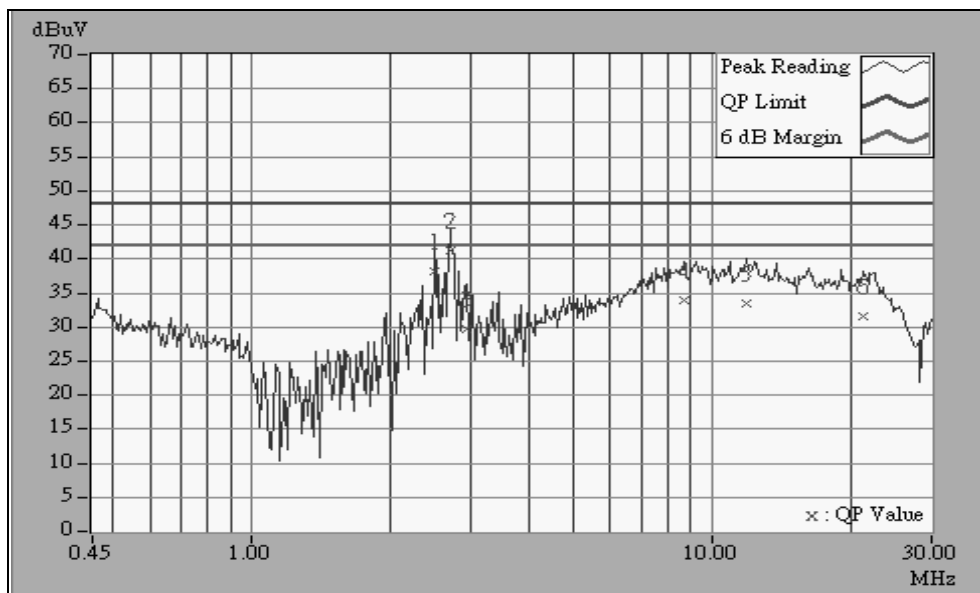


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.
1	2.504	0.23	38.26	-	38.49	-	48.00	-	-9.51	-
2	2.711	0.24	41.19	-	41.43	-	48.00	-	-6.57	-
3	2.922	0.25	29.70	-	29.95	-	48.00	-	-18.05	-
4	8.711	0.38	33.88	-	34.26	-	48.00	-	-13.74	-
5	11.823	0.44	33.57	-	34.01	-	48.00	-	-13.99	-
6	21.242	0.58	31.62	-	32.20	-	48.00	-	-15.80	-

**NOTE:**

- 41. QP. and AV. are abbreviations of quasi-peak and average individually.
- 42. "-": NA
- 43. The emission levels of other frequencies were very low against the limit.
- 44. Margin value = Emission level - Limit value
- 45. Emission Level = Reading Value + Correction Factor.



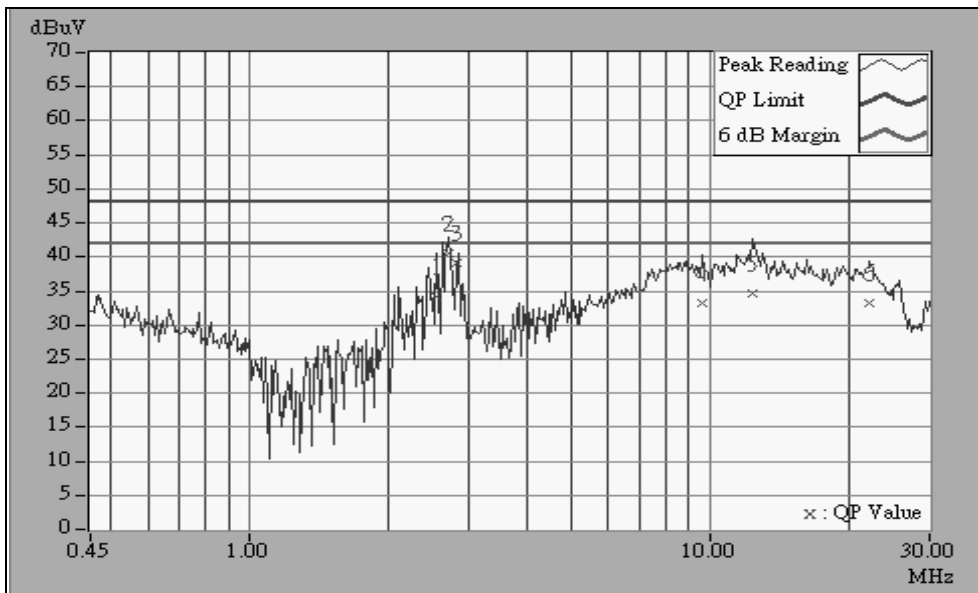


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (Uv)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.
1	2.552	0.23	34.21	-	34.44	-	48.00	-	-13.56	-
2	2.708	0.24	40.43	-	40.67	-	48.00	-	-7.33	-
3	2.814	0.24	39.17	-	39.41	-	48.00	-	-8.59	-
4	9.605	0.39	33.28	-	33.67	-	48.00	-	-14.33	-
5	12.328	0.49	34.74	-	35.23	-	48.00	-	-12.77	-
6	22.207	0.94	33.17	-	34.11	-	48.00	-	-13.89	-

**NOTE:**

- 46. QP. and AV. are abbreviations of quasi-peak and average individually.
- 47. "-": NA
- 48. The emission levels of other frequencies were very low against the limit.
- 49. Margin value = Emission level - Limit value
- 50. Emission Level = Reading Value + Correction Factor.



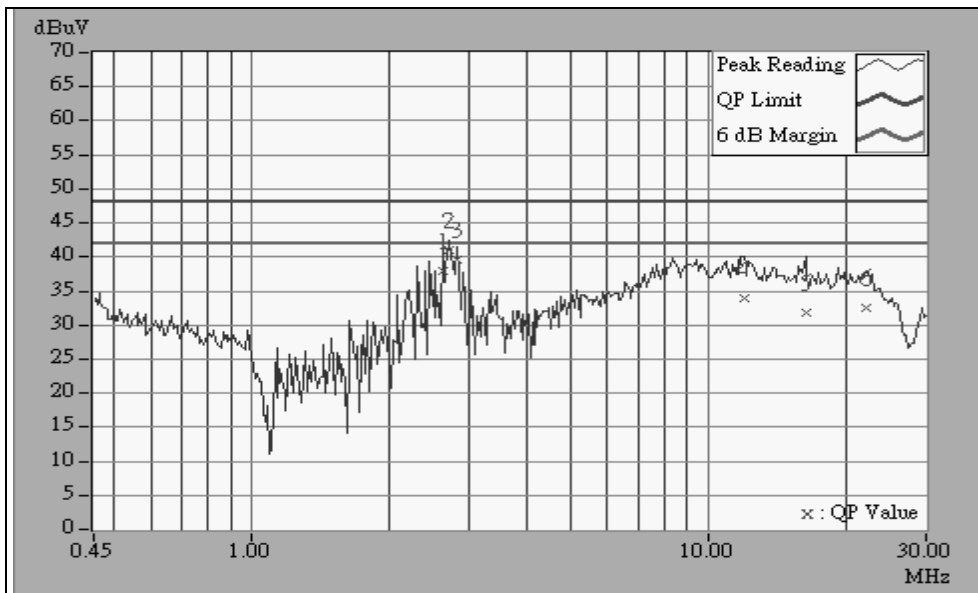


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	2.609	0.23	37.91	-	38.14	-	48.00	-	-9.86	-
2	2.708	0.24	41.03	-	41.27	-	48.00	-	-6.73	-
3	2.810	0.24	39.50	-	39.74	-	48.00	-	-8.26	-
4	12.012	0.44	33.91	-	34.35	-	48.00	-	-13.65	-
5	16.313	0.53	31.79	-	32.32	-	48.00	-	-15.68	-
6	22.266	0.55	32.61	-	33.16	-	48.00	-	-14.84	-

**NOTE:**

- 51. QP. and AV. are abbreviations of quasi-peak and average individually.
- 52. "-": NA
- 53. The emission levels of other frequencies were very low against the limit.
- 54. Margin value = Emission level - Limit value
- 55. Emission Level = Reading Value + Correction Factor.



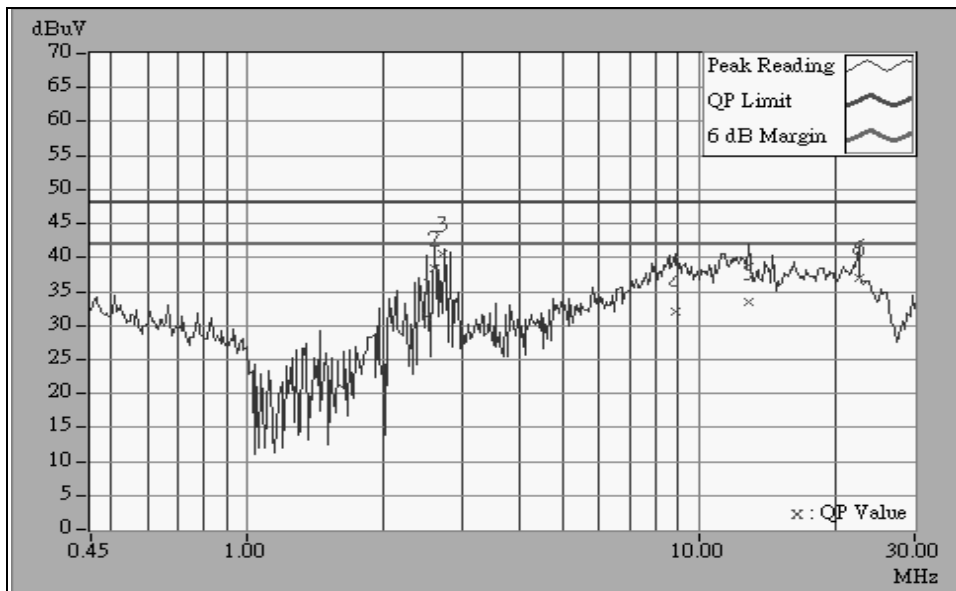


<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Netural (N)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70%RH, 1005 hPa	<b>TESTED BY:</b> Gary Chang	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.
1	2.492	0.22	31.23	-	31.45	-	48.00	-	-16.55	-
2	2.607	0.23	38.30	-	38.53	-	48.00	-	-9.47	-
3	2.707	0.24	40.53	-	40.77	-	48.00	-	-7.23	-
4	8.867	0.38	32.10	-	32.48	-	48.00	-	-15.52	-
5	12.848	0.51	33.50	-	34.01	-	48.00	-	-13.99	-
6	22.570	0.95	37.05	-	38.00	-	48.00	-	-10.00	-

**NOTE:**

- 1.QP. and AV. are abbreviations of quasi-peak and average individually.
- 2."-": NA
- 3.The emission levels of other frequencies were very low against the limit.
- 4.Margin value = Emission level - Limit value
- 5.Emission Level = Reading Value + Correction Factor.





## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field Strength of Fundamental	
	uV/m	dBuV/m
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
Above 960	500	54.0

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



#### 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
* HP Spectrum Analyzer	8590L	3544A01176	May 7, 2002
* HP Preamplifier	8447D	2944A08485	Nov. 3, 2001
* HP Preamplifier	8449B	3008A01201	Dec. 13, 2001
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 25, 2002
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 23, 2001
* CHASE BILOG Antenna	CBL6112A	2221	Aug. 2, 2002
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	July 6, 2002
* EMCO Horn Antenna	3115	9312-4192	April 15, 2002
* EMCO Turn Table	1060	1115	NA
* SHOSHIN Tower	AP-4701	A6Y005	NA
* Software	AS61D4	NA	NA
* ANRITSU RF Switches	MP59B	M35046	Aug. 2, 2002
* TIMES RF cable	LMR-600	CABLE-ST5-01	Aug. 2, 2002
* Antenna (Horn)	BBHA9120-D	D130	July 10, 2002
Open Field Test Site	Site 5	ADT-R05	July 28, 2002
VCCI Site Registration No.	Site 5	R-1039	NA
Site Registration No.	FCC: 90422 Canada IC: IC 3789 VCCI : R-1039		

**NOTE:**

1. The measurement uncertainty is less than +/- 3.0dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. "\*" = These equipments are used for the final measurement.



#### 4.2.3 TEST PROCEDURES

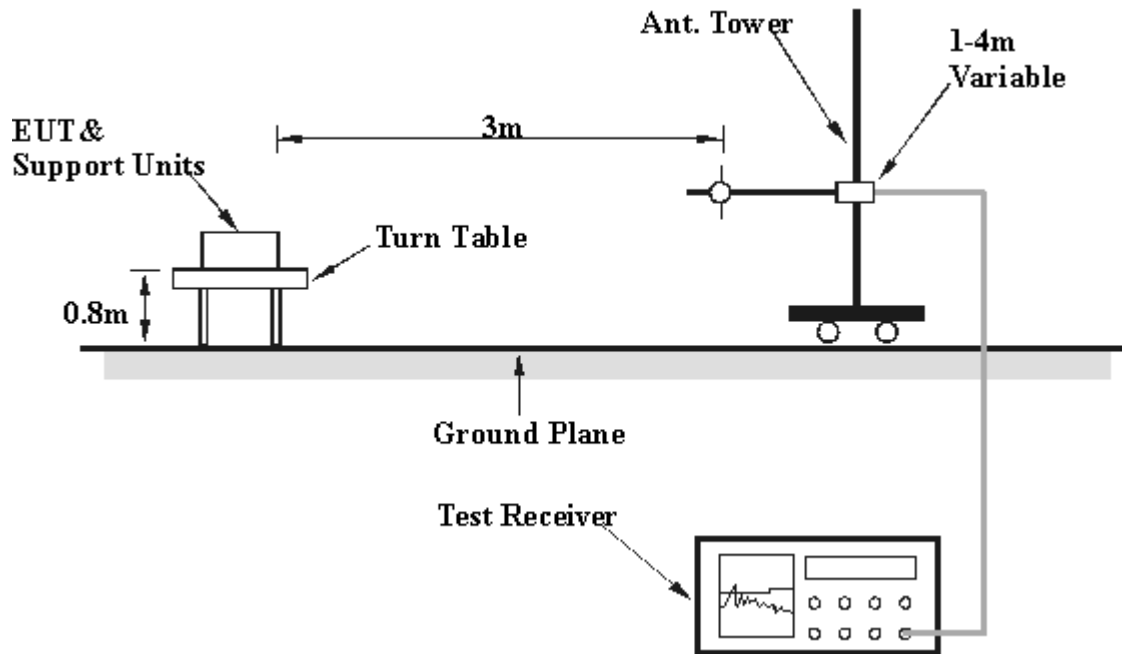
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at frequency above 1GHz.



#### 4.2.4 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

#### 4.2.5 EUT OPERATING CONDITIONS

Same as 4.1.5.

## 4.2.6 TEST RESULTS(A)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	132.47	30.5 QP	43.50	-13.00	1.09H	20	18.20	11.16	1.13	0.00	-12.29
2	264.04	31.8 QP	46.00	-14.20	1.12H	30	17.40	12.75	1.70	0.00	-14.45
3	396.00	32.4 QP	46.00	-13.60	1.15H	319	14.20	15.96	2.22	0.00	-18.18
4	528.04	34.4 QP	46.00	-11.60	1.94H	12	14.20	17.62	2.60	0.00	-20.23
5	748.02	35.5 QP	46.00	-10.50	1.17H	58	12.10	20.14	3.26	0.00	-23.41
6	792.47	35.3 QP	46.00	-10.70	1.22H	231	11.40	20.60	3.31	0.00	-23.91
7	967.47	33.8 QP	54.00	-20.20	1.09H	292	8.74	21.27	3.80	0.00	-25.06

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	220.14	28.0 QP	46.00	-18.00	2.21V	333	16.40	10.12	1.51	0.00	-11.63
2	264.14	31.9 QP	46.00	-14.10	1.91V	45	17.50	12.75	1.70	0.00	-14.45
3	396.50	33.2 QP	46.00	-12.80	1.31V	29	15.00	15.96	2.22	0.00	-18.18
4	748.50	35.8 QP	46.00	-10.20	1.21V	87	12.40	20.14	3.26	0.00	-23.40
5	792.06	35.6 QP	46.00	-10.40	1.57V	66	11.70	20.60	3.31	0.00	-23.91
6	880.09	34.4 QP	46.00	-11.60	1.61V	54	10.20	20.68	3.55	0.00	-24.23

**NOTE:**

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.80	53.1 PK	74.00	-20.90	1.13H	345	24.50	25.27	3.29	0.00	-28.57
2	2037.80	51.9 AV	54.00	-2.10	1.13H	345	23.33	25.27	3.29	0.00	-28.57
3	*2413.40	97.4 PK	-	-	1.11H	307	66.58	27.19	3.62	0.00	-30.82
4	*2413.40	90.9 AV	-	-	1.11H	307	60.10	27.19	3.62	0.00	-30.82
5	4075.50	50.9 PK	74.00	-23.10	1.81H	61	16.00	30.18	4.77	0.00	-34.96
6	4824.00	49.9 PK	74.00	-24.10	1.39H	235	13.23	31.43	5.21	0.00	-36.64

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (DbuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.80	50.4 PK	74.00	-23.60	1.00V	48	21.88	25.27	3.29	0.00	-28.57
2	*2413.50	93.9 PK	-	-	1.87V	127	63.08	27.19	3.62	0.00	-30.82
3	*2413.50	88.2 AV	-	-	1.87V	127	57.40	27.19	3.62	0.00	-30.82
4	4075.40	51.1 PK	74.00	-22.90	1.49V	99	16.20	30.18	4.77	0.00	-34.95
5	4824.20	52.0 PK	74.00	-22.00	1.49V	118	15.40	31.43	5.21	0.00	-36.64
6	8152.40	55.0 PK	74.00	-19.00	1.44V	164	11.40	36.66	6.97	0.00	-43.63.
7	8152.40	45.7 AV	54.00	-8.30	1.44V	164	2.10	36.66	6.97	0.00	-43.63

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.20	51.0 PK	74.00	-23.00	1.19H	343	22.29	25.39	3.31	0.00	-28.70
2	*2438.00	96.4 PK	-	-	1.73H	29	65.44	27.30	3.64	0.00	-30.94.
3	*2438.00	89.0 AV	-	-	1.73H	29	58.10	27.30	3.64	0.00	-30.94.
4	4126.50	49.9 PK	74.00	-24.10	1.81H	10	14.80	30.28	4.79	0.00	-35.07
5	4873.80	50.5 PK	74.00	-23.50	1.51H	352	13.80	31.47	5.25	0.00	-36.72
6	6188.30	51.6 PK	74.00	-22.40	1.42H	261	12.40	33.19	6.01	0.00	-39.20
7	8250.60	55.4 PK	74.00	-18.60	1.79H	2	11.70	36.70	7.01	0.00	-43.72
8	8250.60	45.1 AV	54.00	-8.90	1.79H	2	1.40	36.70	7.01	0.00	-43.71.

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.70	48.3 PK	74.00	-25.70	1.09V	8	19.62	25.39	3.31	0.00	-28.70
2	*2435.10	96.0 PK	-	-	1.13V	251	65.10	27.30	3.64	0.00	-30.94
3	*2435.10	90.1 AV	-	-	1.13V	251	59.20	27.30	3.64	0.00	-30.94
4	4126.20	50.8 PK	74.00	-23.20	1.25V	136	15.70	30.28	4.79	0.00	-35.07
5	4874.30	50.9 PK	74.00	-23.10	1.88V	253	14.20	31.47	5.25	0.00	-36.72
6	6188.20	49.7 PK	74.00	-24.30	1.28V	76	10.50	33.19	6.01	0.00	-39.20

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2087.40	51.2 AV	74.00	-22.80	1.10H	342	22.39	25.50	3.33	0.00	-28.83
2	*2463.20	96.9 PK	-	-	1.35H	321	65.80	27.41	3.66	0.00	-31.08
3	*2463.20	90.5 AV	-	-	1.35H	321	59.40	27.41	3.66	0.00	-31.08
4	2483.50	53.4 PK	74.00	-20.60	1.18H	213	22.19	27.52	3.68	0.00	-31.20
5	2483.50	42.0 AV	54.00	-12.00	1.18H	213	10.80	27.52	3.68	0.00	-31.20
6	4176.50	48.8 PK	74.00	-25.20	1.85H	342	13.58	30.38	4.81	0.00	-35.19
7	4924.10	51.0 PK	74.00	-23.00	1.29H	322	14.20	31.51	5.28	0.00	-36.80
8	6263.20	51.6 PK	74.00	-22.40	1.37H	144	12.10	33.46	6.03	0.00	-39.49

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2088.00	50.9 PK	74.00	-23.10	1.07V	297	22.10	25.50	3.33	0.00	-28.83
2	*2463.40	97.5 PK	-	-	1.01V	11	66.40	27.41	3.66	0.00	-31.07.
3	*2463.40	92.3 AV	-	-	1.01V	11	61.20	27.41	3.66	0.00	-31.07.
4	2483.70	49.6 PK	74.00	-24.40	1.07V	89	18.40	27.52	3.68	0.00	-31.20
5	4176.30	51.9 PK	74.00	-22.10	1.94V	56	16.70	30.38	4.81	0.00	-35.19
6	4923.50	51.0 PK	74.00	-23.00	1.45V	316	14.20	31.51	5.28	0.00	-36.80
7	6263.20	49.9 PK	74.00	-24.10	1.11V	41	10.40	33.46	6.03	0.00	-39.49

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



## 4.2.7 TEST RESULTS(B)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	176.21	35.5 QP	43.50	-8.00	2.04H	12	25.10	9.08	1.33	0.00	-10.41
2	264.06	32.8 QP	46.00	-13.20	1.04H	355	18.40	12.75	1.70	0.00	-14.45
3	396.04	36.4 QP	46.00	-9.60	1.36H	354	18.20	15.96	2.22	0.00	-18.18
4	528.03	36.7 QP	46.00	-9.30	1.33H	8	16.50	17.62	2.60	0.00	-20.22
5	748.10	38.6 QP	46.00	-7.40	1.36H	292	15.20	20.14	3.26	0.00	-23.41
6	792.14	38.2 QP	46.00	-7.80	1.27H	142	14.30	20.60	3.31	0.00	-23.91
7	880.47	36.9 QP	46.00	-9.10	1.80H	61	12.70	20.68	3.55	0.00	-24.23

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	176.24	32.8 QP	43.50	-10.70	1.00V	337	22.40	9.08	1.33	0.00	-10.41
2	396.05	33.9 QP	46.00	-12.10	1.59V	128	15.70	15.96	2.22	0.00	-18.18
3	528.07	36.6 QP	46.00	-9.40	1.39V	104	16.40	17.62	2.60	0.00	-20.23
4	659.71	35.5 QP	46.00	-10.50	1.18V	52	13.20	19.25	3.05	0.00	-22.30
5	748.24	38.2 QP	46.00	-7.80	1.94V	360	14.80	20.14	3.26	0.00	-23.41
6	792.47	38.4 QP	46.00	-7.60	1.54V	327	14.50	20.60	3.31	0.00	-23.92
7	880.14	37.4 QP	46.00	-8.60	1.52V	149	13.20	20.68	3.55	0.00	-24.24

**NOTE:**

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.80	49.9 PK	74.00	-24.10	1.02H	151	21.30	25.27	3.29	0.00	-28.57
2	*2413.10	106.9 PK	-	-	1.60H	317	76.10	27.19	3.62	0.00	-30.82
3	*2413.10	97.9 AV	-	-	1.60H	317	67.10	27.19	3.62	0.00	-30.82
4	4075.40	50.3 PK	74.00	-23.70	1.42H	107	15.40	30.18	4.77	0.00	-34.95
5	4824.10	51.4 PK	74.00	-22.60	1.52H	86	14.80	31.43	5.21	0.00	-36.65

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.80	47.0 PK	74.00	-27.00	1.00V	59	18.48	25.27	3.29	0.00	-28.57
2	*2413.00	104.4 PK	-	-	1.55V	348	73.64	27.19	3.62	0.00	-30.82
3	*2413.00	97.9 AV	-	-	1.55V	348	67.10	27.19	3.62	0.00	-30.82
4	4074.70	49.2 PK	74.00	-24.80	1.14V	348	14.30	30.18	4.77	0.00	-34.95
5	4824.10	52.0 PK	74.00	-22.00	1.45V	78	15.40	31.43	5.21	0.00	-36.65

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.80	48.8 PK	74.00	-25.20	1.17H	217	20.11	25.39	3.31	0.00	-28.70
2	*2438.00	106.3 PK	-	-	1.75H	92	75.40	27.30	3.64	0.00	-30.94.
3	*2438.00	99.1 AV	-	-	1.75H	92	68.20	27.30	3.64	0.00	-30.94.
4	4125.50	50.8 PK	74.00	-23.20	1.07H	354	15.70	30.28	4.79	0.00	-35.07
5	4873.90	50.8 PK	74.00	-23.20	1.90H	235	14.10	31.47	5.25	0.00	-36.72

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.80	48.1 PK	74.00	-25.90	1.00V	346	19.40	25.39	3.31	0.00	-28.70
2	*2463.90	104.3 PK	-	-	1.18V	11	73.20	27.41	3.66	0.00	-31.07.
3	*2463.90	98.5 AV	-	-	1.18V	11	67.40	27.41	3.66	0.00	-31.07.
4	4126.50	50.9 PK	74.00	-23.10	1.52V	90	15.80	30.28	4.79	0.00	-35.07
5	4874.30	51.9 PK	74.00	-22.10	1.13V	63	15.20	31.47	5.25	0.00	-36.72

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.





<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2087.50	47.9 PK	74.00	-26.10	1.03H	282	19.06	25.50	3.33	0.00	-28.83
2	*2463.20	104.3 PK	-	-	1.22H	319	73.20	27.41	3.66	0.00	-31.08
3	*2463.20	95.3 AV	-	-	1.22H	319	64.20	27.41	3.66	0.00	-31.08
4	2483.50	57.0 PK	74.00	-17.00	1.23H	240	25.76	27.52	3.68	0.00	-31.20.
5	2483.50	49.9 AV	54.00	-4.10	1.23H	240	18.71	27.52	3.68	0.00	-31.20
6	4176.10	51.6 PK	74.00	-22.40	1.50H	179	16.40	30.38	4.81	0.00	-35.19
7	4924.10	52.2 PK	74.00	-21.80	1.44H	349	15.40	31.51	5.28	0.00	-36.80
8	8352.10	56.2 PK	74.00	-17.80	1.31H	72	12.40	36.74	7.07	0.00	-43.82
9	8352.10	46.2 AV	54.00	-7.80	1.31H	72	2.40	36.74	7.07	0.00	-43.82

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (DbuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2087.80	48.2 PK	74.00	-25.80	1.12V	127	19.40	25.50	3.33	0.00	-28.83
2	*2463.00	104.5 PK	-	-	1.10V	348	73.41	27.41	3.66	0.00	-31.08
3	*2463.00	99.5 AV	-	-	1.10V	348	68.40	27.41	3.66	0.00	-31.08
4	2483.50	52.6 PK	74.00	-21.40	1.24V	72	21.40	27.52	3.68	0.00	-31.20
5	4175.80	51.4 PK	74.00	-22.60	1.11V	17	16.20	30.38	4.81	0.00	-35.19
6	4925.70	51.6 PK	74.00	-22.40	1.80V	40	14.80	31.51	5.28	0.00	-36.80

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



## 4.2.8 TEST RESULTS(C)

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	220.40	32.2 QP	46.00	-13.80	1.64H	123	20.40	10.26	1.52	0.00	-11.79
2	396.40	33.6 QP	46.00	-12.40	1.45H	77	15.40	15.96	2.22	0.00	-18.19
3	440.17	33.5 QP	46.00	-12.50	1.46H	67	14.80	16.32	2.38	0.00	-18.70
4	528.07	32.6 QP	46.00	-13.40	1.13H	346	12.40	17.62	2.60	0.00	-20.22
5	748.10	34.6 QP	46.00	-11.40	1.54H	99	11.20	20.14	3.26	0.00	-23.40
6	836.40	32.4 QP	46.00	-13.60	1.33H	193	8.40	20.53	3.46	0.00	-23.99

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	132.00	29.8 QP	43.50	-13.70	1.30V	269	17.50	11.16	1.13	0.00	-12.29
2	264.04	30.6 QP	46.00	-15.40	2.24V	61	16.20	12.75	1.70	0.00	-14.46
3	395.86	30.6 QP	46.00	-15.40	1.60V	300	12.40	15.96	2.22	0.00	-18.18
4	528.03	31.0 QP	46.00	-15.00	2.17V	207	10.80	17.62	2.60	0.00	-20.22
5	748.04	34.6 QP	46.00	-11.40	1.33V	76	11.20	20.14	3.26	0.00	-23.40
6	792.06	34.1 QP	46.00	-11.90	1.03V	49	10.20	20.60	3.31	0.00	-23.91
7	880.12	32.6 QP	46.00	-13.40	1.70V	335	8.40	20.68	3.55	0.00	-24.23

**NOTE:**

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 1	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.90	47.1 PK	74.00	-26.90	1.22H	272	18.50	25.27	3.29	0.00	-28.57
2	*2413.10	98.7 PK	-	-	1.91H	340	67.85	27.19	3.62	0.00	-30.82
3	*2413.10	90.5 AV	-	-	1.91H	340	59.70	27.19	3.62	0.00	-30.82
4	4074.20	50.3 PK	74.00	-23.70	1.46H	10	15.40	30.18	4.77	0.00	-34.96
5	4824.10	50.2 PK	74.00	-23.80	1.19H	16	13.57	31.43	5.21	0.00	-36.65

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (DbuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2037.80	47.8 PK	74.00	-26.20	1.10V	355	19.20	25.27	3.29	0.00	-28.57
2	*2412.90	98.5 PK	-	-	1.83V	10	67.65	27.19	3.62	0.00	-30.81.
3	*2412.90	91.0 AV	-	-	1.83V	10	60.20	27.19	3.62	0.00	-30.81.
4	4074.20	50.7 PK	74.00	-23.30	1.38V	90	15.80	30.18	4.77	0.00	-34.96
5	4824.20	50.4 PK	74.00	-23.60	1.24V	70	13.80	31.43	5.21	0.00	-36.65

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 6	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.80	47.9 PK	74.00	-26.10	1.15H	68	19.20	25.39	3.31	0.00	-28.70
2	*2437.90	99.6 PK	-	-	1.15H	250	68.69	27.30	3.64	0.00	-30.94
3	*2437.90	91.0 AV	-	-	1.15H	250	60.10	27.30	3.64	0.00	-30.94
4	4125.70	50.5 PK	74.00	-23.50	1.50H	19	15.40	30.28	4.79	0.00	-35.07
5	4874.20	50.9 PK	74.00	-23.10	1.21H	52	14.20	31.47	5.25	0.00	-36.72

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (DbuV/m)	Limit (DbuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2062.70	45.1 PK	74.00	-28.90	1.45V	222	16.45	25.39	3.31	0.00	-28.70
2	*2438.10	105.1 PK	-	-	1.01V	35	74.20	27.30	3.64	0.00	-30.94.
3	*2438.10	98.1 AV	-	-	1.01V	35	67.20	27.30	3.64	0.00	-30.94.
4	4125.60	50.3 PK	74.00	-23.70	1.22V	225	15.20	30.28	4.79	0.00	-35.07
5	4874.20	51.5 PK	74.00	-22.50	1.40V	4	14.80	31.47	5.25	0.00	-36.72

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>MODE</b>	Channel 11	<b>FREQUENCY RANGE</b>	Above 1000 MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	30 deg. C, 70% RH, 1050 hPa	<b>TESTED BY:</b> Gary Chang	

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2087.50	47.1 PK	74.00	-26.90	1.00H	261	18.25	25.50	3.33	0.00	-28.83
2	*2463.00	102.3 PK	-	-	1.14H	18	71.20	27.41	3.66	0.00	-31.07.
3	*2463.00	94.5 AV	-	-	1.14H	18	63.40	27.41	3.66	0.00	-31.07.
4	2483.50	50.0 PK	74.00	-24.00	1.86H	261	18.79	27.52	3.68	0.00	-31.20
5	4176.20	46.6 PK	74.00	-27.40	1.14H	9	11.45	30.38	4.81	0.00	-35.19
6	4924.10	50.2 PK	74.00	-23.80	1.29H	253	13.45	31.51	5.28	0.00	-36.80

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (DbuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	2087.80	47.2 PK	74.00	-26.80	1.82V	23	18.40	25.50	3.33	0.00	-28.83
2	*2463.70	104.5 PK	-	-	1.20V	357	73.47	27.41	3.66	0.00	-31.07
3	*2463.70	99.2 AV	-	-	1.20V	357	68.10	27.41	3.66	0.00	-31.07
4	2483.50	49.0 PK	74.00	-25.00	1.53V	276	17.80	27.52	3.68	0.00	-31.20
5	4175.60	50.9 PK	74.00	-23.10	1.31V	16	15.70	30.38	4.81	0.00	-35.19
6	4924.80	51.0 PK	74.00	-23.00	1.40V	212	14.20	31.51	5.28	0.00	-36.80

#### NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss  
(Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " \* " : Fundamental frequency
5. The other emission levels were very low against the limit.



### 4.3 6DB BANDWIDTH MEASUREMENT

#### 4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

#### 4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ TEST RECEIVER	ESMI	839379/002	Dec. 28, 2001
HP ATTENUATOR	8496B	3247A18505	Cal. on use
HP PLOTTER	7475A	2641V27755	N/A

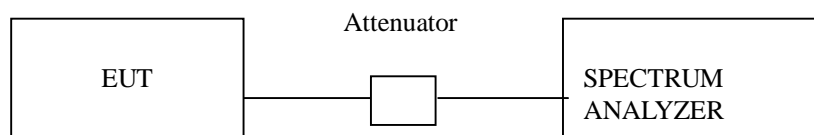
**NOTE:**

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz RBW and 100 kHz VBW. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

#### 4.3.4 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

#### 4.3.5 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



## 4.3.6 TEST RESULTS

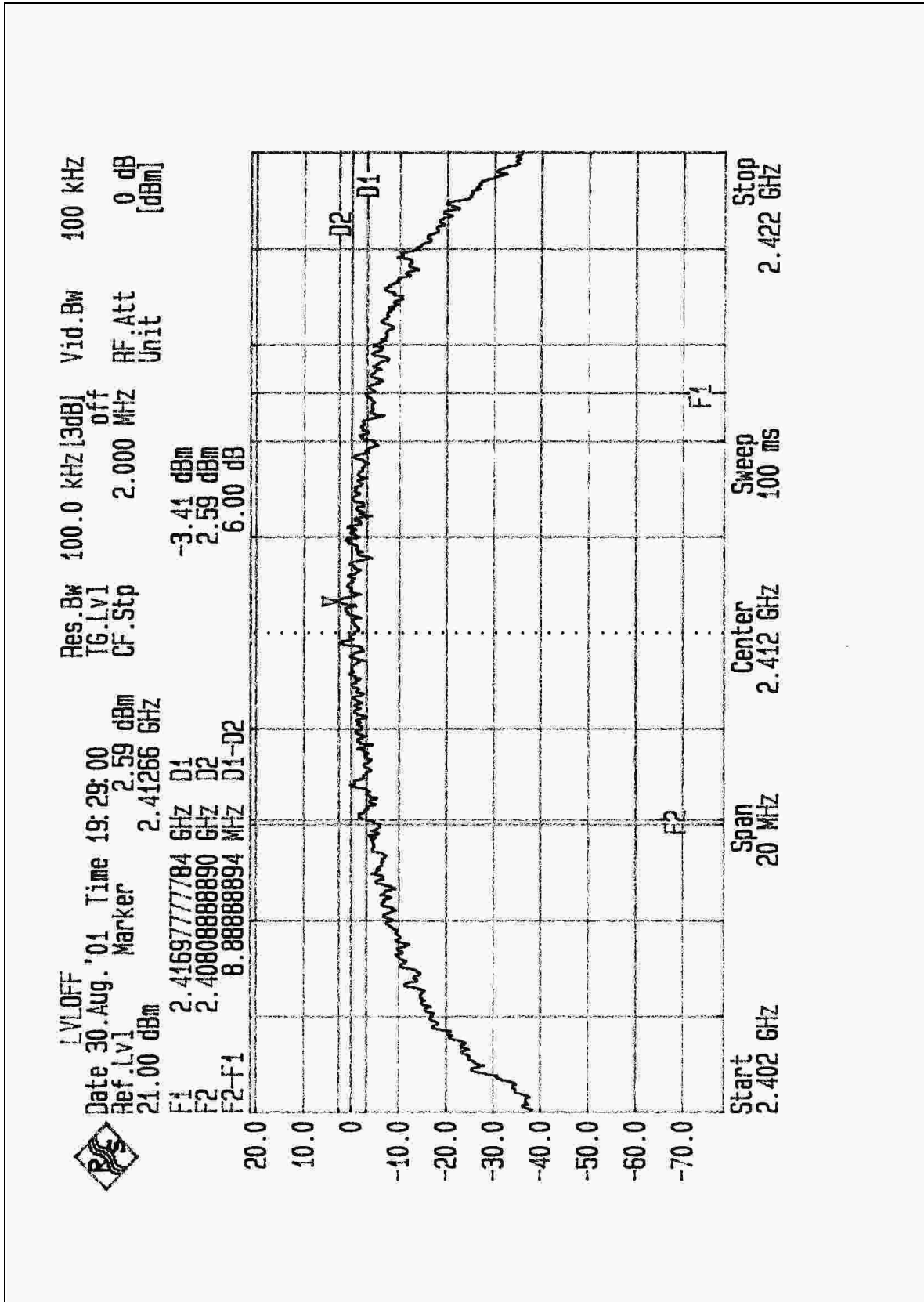
<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	27 deg. C, 75%RH, 1005 hPa
<b>TESTED BY:</b> James Lee			

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>6 dB BANDWIDTH (MHz)</b>	<b>MINIMUM LIMIT (MHz)</b>	<b>PASS/FAIL</b>
1	2412	8.89	0.5	PASS
6	2437	8.96	0.5	PASS
11	2462	8.87	0.5	PASS



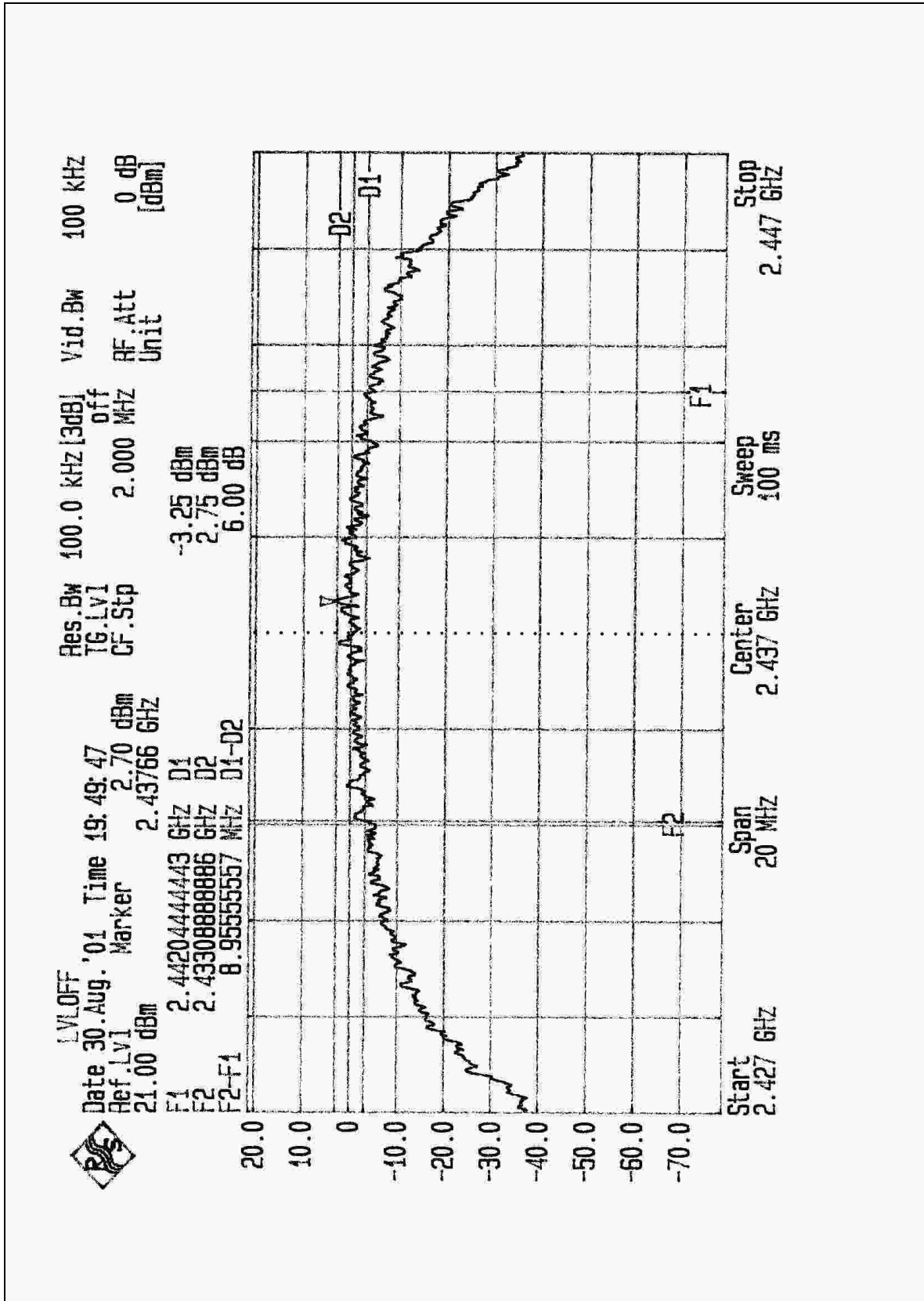


CH1



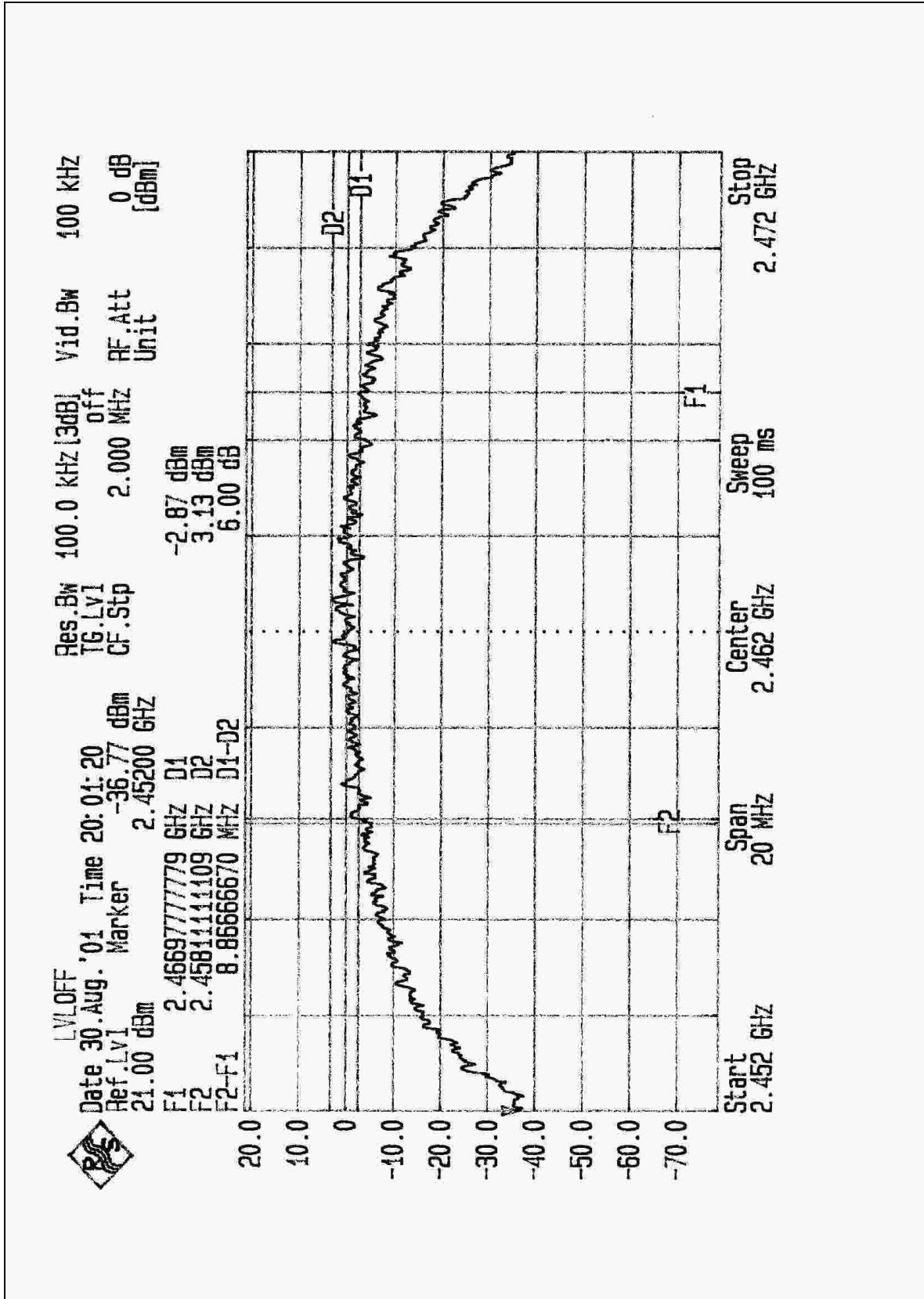


CH6





CH11





#### 4.4 MAXIMUM PEAK OUTPUT POWER

##### 4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

##### 4.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ TEST RECEIVER	ESMI	839379/002	Dec. 28, 2001
HP ATTENUATOR	8496B	3247A18505	Cal. on use
HP PLOTTER	7475A	2641V27755	N/A

**NOTE:**

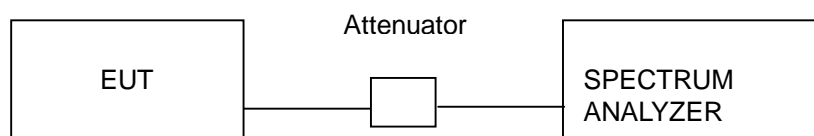
1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.4.3 TEST PROCEDURES

- a. The transmitter output was connected to the spectrum analyzer through an attenuator.
- b. The center frequency of the spectrum analyzer was set to the fundamental frequency and using 3 MHz RBW and 3 MHz VBW.
- c. The span of the spectrum analyzer should be larger than 6dB BandWidth plus 10MHz.
- d. Used Peak Search to read the peak power after Maximum Hold function was activated.
- e. Shifted the marker to +/- 3MHz and +/-6MHz, and recorded the reading.
- f. The Maximum Peak Output Power was the linear summation of the 5 readings in (4) and (5).

**NOTE:** This measurement is the total power of 15MHz bandwidth which is far more wider than 6dB bandwidth.

#### 4.4.4 TEST SETUP



#### 4.4.5 EUT OPERATING CONDITIONS

Same as Item 4.3.5



## 4.4.6 TEST RESULTS

<b>EUT</b>	Wireless LAN 11Mbps PC Card	<b>MODEL</b>	WP210P
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	27 deg. C, 75%RH, 1005 hPa
<b>TESTED BY:</b> James Lee			

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
1	2412	18.10	30	PASS
6	2437	18.10	30	PASS
11	2462	18.10	30	PASS