



FCC TEST REPORT

REPORT NO.: RF900816R01

MODEL NO.: PCI111200

RECEIVED: August 16, 2001

TESTED: August 22~ August 24, 2001

APPLICANT: UNIVERSAL SCIENTIFIC INDUSTRIAL CO., LTD.

ADDRESS: 141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen,
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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 : IEEE802.11 Wireless LAN PCI Adapter
BRAND NAME : USI
MODEL NO. : PCI111200
APPLICANT : UNIVERSAL SCIENTIFIC INDUSTRIAL CO., LTD.
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 22, 2001 to August 24, 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: Aug 28, 2001
Gary Chang

CHECKED BY : Demi Chen , DATE: Aug 28, 2001
Demi Chen

APPROVED BY : Alan Lane , DATE: Aug 28, 2001
Dr. Alan Lane, Manager



2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Section	Test Type and Limit	Result	REMARK
15.107	AC Power Conducted Emission Limit: 48dBuV	PASS	Meet the requirement of limit Minimum passing margin is -7.21dBuV at 22.57031MHz
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 -7.9dBuV at 8251.40 MHz
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

PRODUCT	IEEE802.11 Wireless LAN PCI Adapter
MODEL NO.	PCI111200
POWER SUPPLY	5VDC from host equipment
MODULATION TYPE	CCK, BPSK, QPSK
RADIO TECHNOLOGY	DSSS
TRANSFER RATE	1/2/5.5/11Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	15dBm
ANTENNA TYPE	dipole antenna (long antenna) helical antenna (short antenna)
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. Wireless LAN is local area networking without wires, which uses radio frequencies to transmit and receive data between PC's or other network devices without wires or cables.
2. The EUT have two antenna types. The only difference is length of antenna.
3. 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. Test result (A) is for Dipole and (B) is for Helical antenna.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a IEEE802.11 Wireless LAN PCI Adapter. 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	Personal Computer	IBM	6339	NA	DoC
2	19" COLOR MONITOR	HP	D2842A	KR93473168	BEJCB910
3	PS/2 KEYBOARD	FORWARD	FDA-104GA	FDKB8110111	F4ZDA-104G
4	MOUSE	LOGITECH	M-S43	LZE00703207	DZL211106
5	PRINTER	HP	2225C+	3123S97230	DSI6XU2225
6	MODEM	ACEEX	1414	980020510	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8 m braid shielded wire, terminated with VGA connector via metallic frame, w/o core.
3	1.5 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
4	1.8 m foil shielded wire, terminated with PS2 connector via drain wire, w/o core.
5	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
6	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

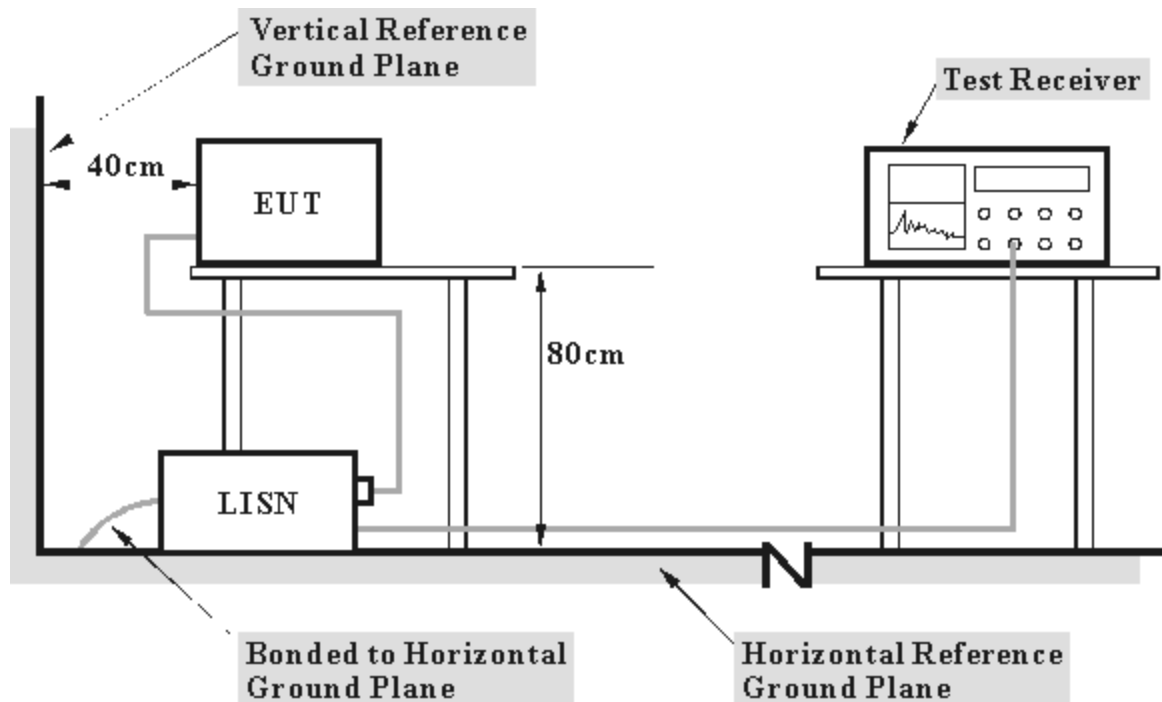
NOTE:

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 color monitor.
- 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.



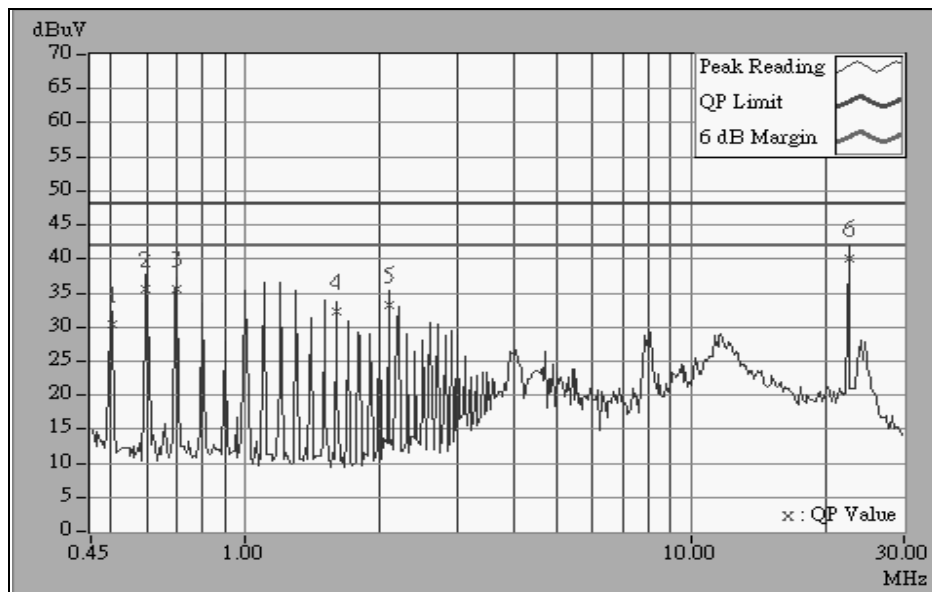
4.1.6 TEST RESULTS(A)

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: 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	0.50078	0.12	30.51	-	30.63	-	48.00	-	-17.37	-
2	0.59844	0.13	35.59	-	35.72	-	48.00	-	-12.28	-
3	0.70000	0.15	35.60	-	35.75	-	48.00	-	-12.25	-
4	1.59766	0.20	32.27	-	32.47	-	48.00	-	-15.53	-
5	2.09766	0.20	33.23	-	33.43	-	48.00	-	-14.57	-
6	22.57031	0.55	40.10	-	40.65	-	48.00	-	-7.35	-

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.



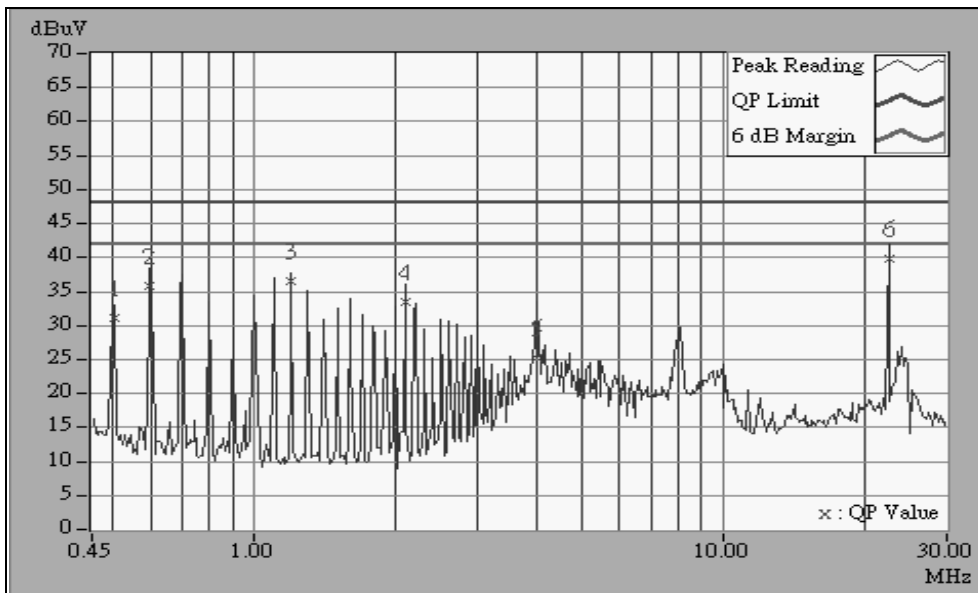


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.50078	0.12	31.04	-	31.16	-	48.00	-	-16.84	-
2	0.59844	0.13	35.87	-	36.00	-	48.00	-	-12.00	-
3	1.19922	0.20	36.62	-	36.82	-	48.00	-	-11.18	-
4	2.09766	0.20	33.38	-	33.58	-	48.00	-	-14.42	-
5	4.00391	0.30	25.21	-	25.51	-	48.00	-	-22.49	-
6	22.57031	0.95	39.79	-	40.74	-	48.00	-	-7.26	-

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.



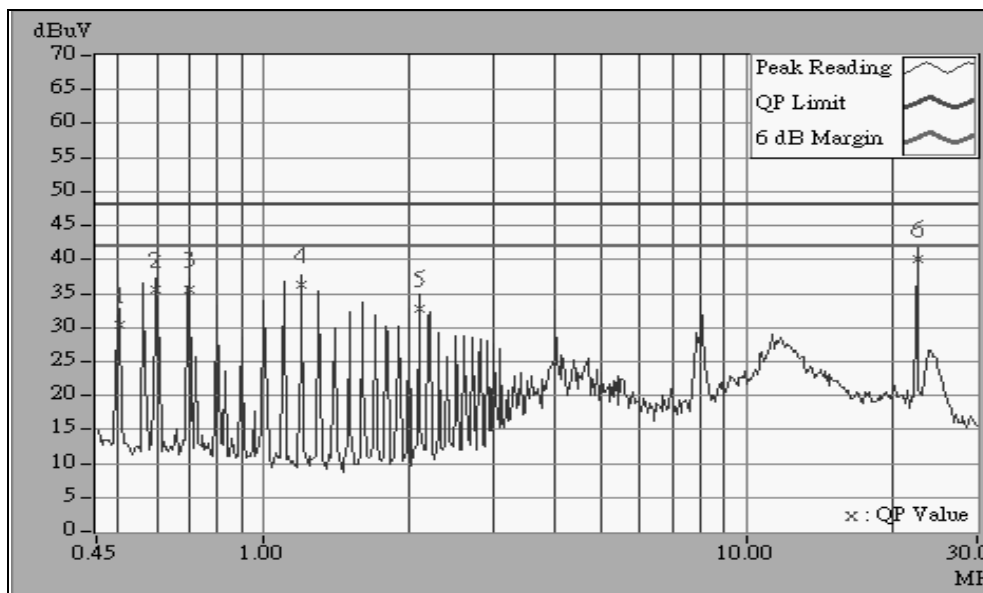


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.50078	0.12	30.39	-	30.51	-	48.00	-	-17.49	-
2	0.59844	0.13	35.61	-	35.74	-	48.00	-	-12.26	-
3	0.70000	0.15	35.48	-	35.63	-	48.00	-	-12.37	-
4	1.19922	0.20	36.33	-	36.53	-	48.00	-	-11.47	-
5	2.09766	0.20	32.77	-	32.97	-	48.00	-	-15.03	-
6	22.57031	0.55	40.02	-	40.57	-	48.00	-	-7.43	-

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.



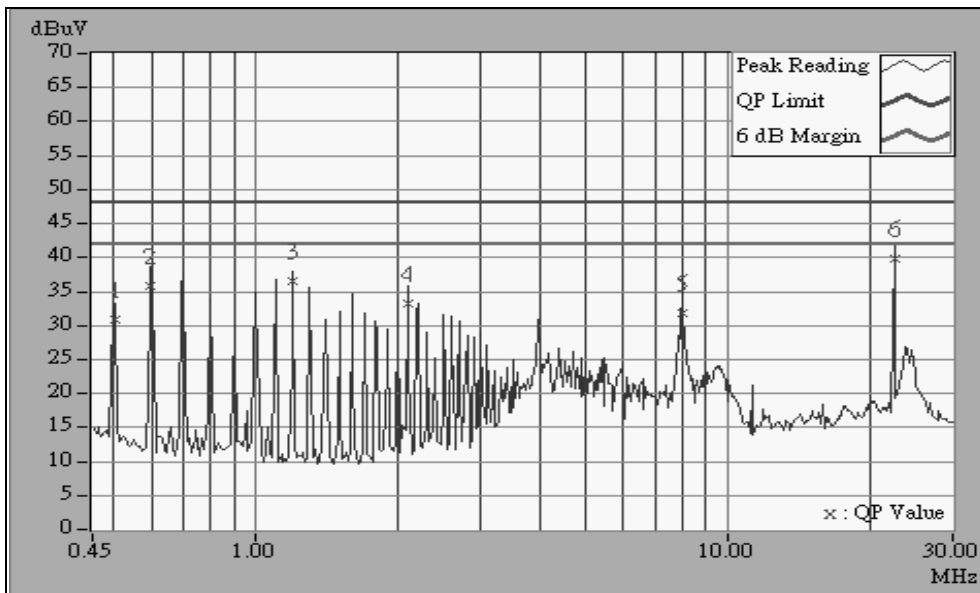


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.50078	0.12	30.94	-	31.06	-	48.00	-	-16.94	-
2	0.59844	0.13	35.89	-	36.02	-	48.00	-	-11.98	-
3	1.19922	0.20	36.58	-	36.78	-	48.00	-	-11.22	-
4	2.09766	0.20	33.25	-	33.45	-	48.00	-	-14.55	-
5	7.99609	0.37	31.75	-	32.12	-	48.00	-	-15.88	-
6	22.57031	0.95	39.77	-	40.72	-	48.00	-	-7.28	-

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.



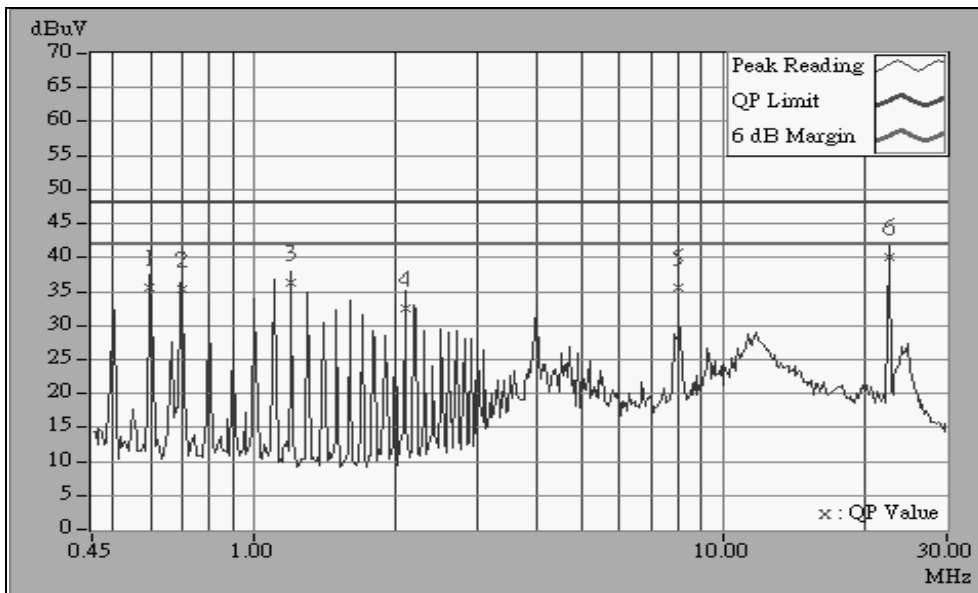


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.59844	0.13	35.59	-	35.72	-	48.00	-	-12.28	-
2	0.70000	0.15	35.44	-	35.59	-	48.00	-	-12.41	-
3	1.19922	0.20	36.21	-	36.41	-	48.00	-	-11.59	-
4	2.09766	0.20	32.50	-	32.70	-	48.00	-	-15.30	-
5	7.99219	0.37	35.65	-	36.02	-	48.00	-	-11.98	-
6	22.57031	0.55	40.00	-	40.55	-	48.00	-	-7.45	-

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.



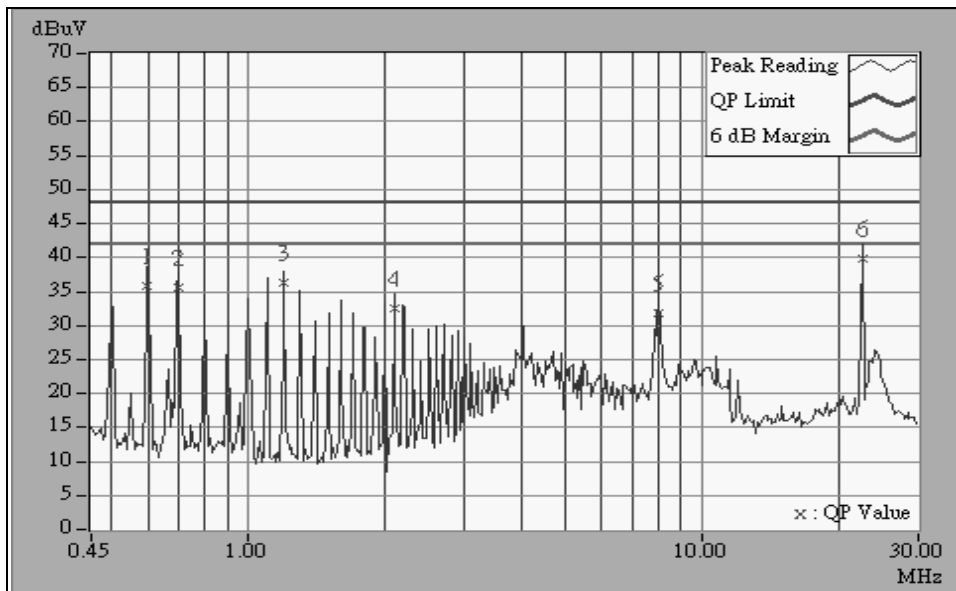


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Netural (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.59844	0.13	35.85	-	35.98	-	48.00	-	-12.02	-
2	0.70000	0.15	35.58	-	35.73	-	48.00	-	-12.27	-
3	1.19922	0.20	36.31	-	36.51	-	48.00	-	-11.49	-
4	2.09766	0.20	32.64	-	32.84	-	48.00	-	-15.16	-
5	7.99609	0.37	31.75	-	32.12	-	48.00	-	-15.88	-
6	22.57031	0.95	39.75	-	40.70	-	48.00	-	-7.30	-

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.





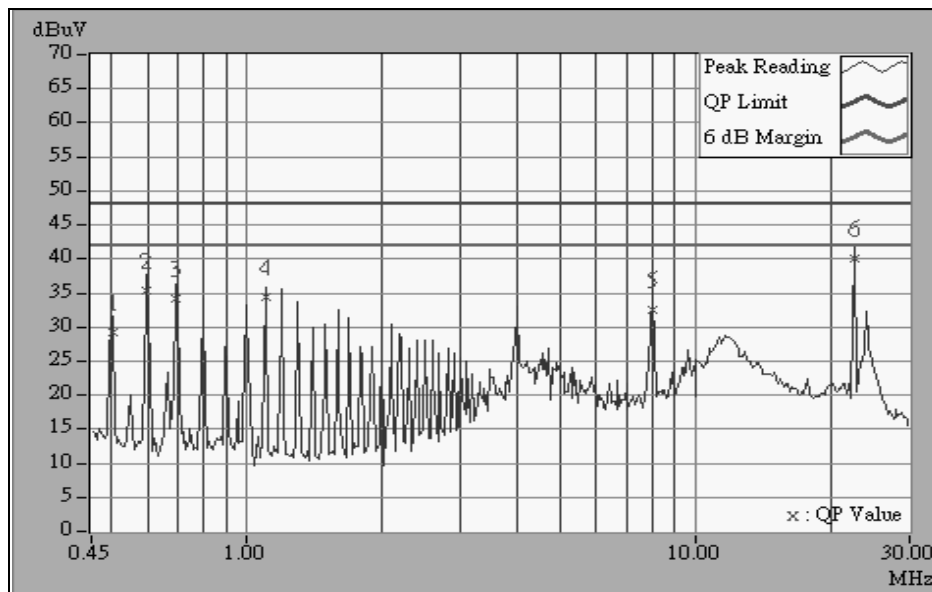
4.1.7 TEST RESULTS(B)

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: 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	0.50078	0.12	29.34	-	29.46	-	48.00	-	-18.54	-
2	0.59843	0.13	35.39	-	35.52	-	48.00	-	-12.48	-
3	0.69609	0.15	34.12	-	34.27	-	48.00	-	-13.73	-
4	1.09766	0.20	34.30	-	34.50	-	48.00	-	-13.50	-
5	7.99609	0.37	32.54	-	32.91	-	48.00	-	-15.09	-
6	22.57031	0.55	39.96	-	40.51	-	48.00	-	-7.49	-

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.



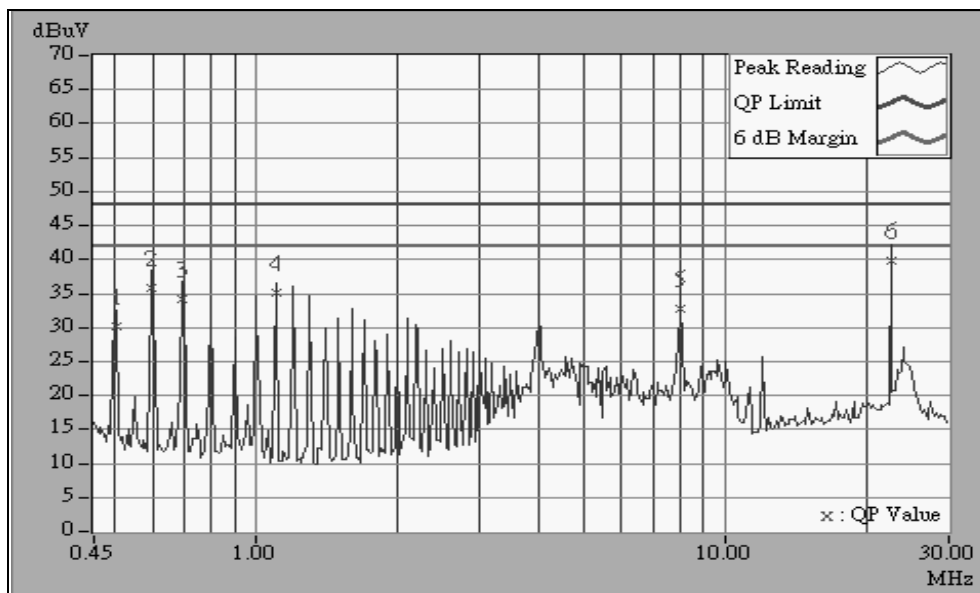


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.50078	0.12	30.11	-	30.23	-	48.00	-	-17.77	-
2	0.59844	0.13	35.73	-	35.86	-	48.00	-	-12.14	-
3	0.69609	0.15	34.16	-	34.31	-	48.00	-	-13.69	-
4	1.09766	0.20	35.01	-	35.21	-	48.00	-	-12.79	-
5	7.99609	0.37	32.79	-	33.16	-	48.00	-	-14.84	-
6	22.57031	0.95	39.73	-	40.68	-	48.00	-	-7.32	-

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.



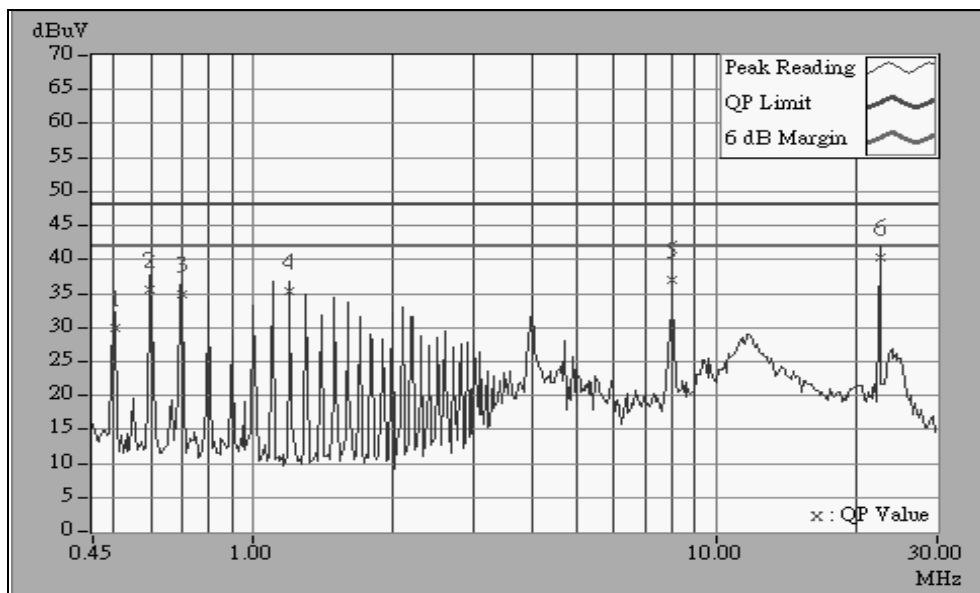


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.50078	0.12	29.91	-	30.03	-	48.00	-	-17.97	-
2	0.59844	0.13	35.57	-	35.70	-	48.00	-	-12.30	-
3	0.70000	0.15	34.95	-	35.10	-	48.00	-	-12.90	-
4	1.19922	0.20	35.36	-	35.56	-	48.00	-	-12.44	-
5	7.99219	0.37	37.03	-	37.40	-	48.00	-	-10.60	-
6	22.57031	0.55	40.24	-	40.79	-	48.00	-	-7.21	-

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.



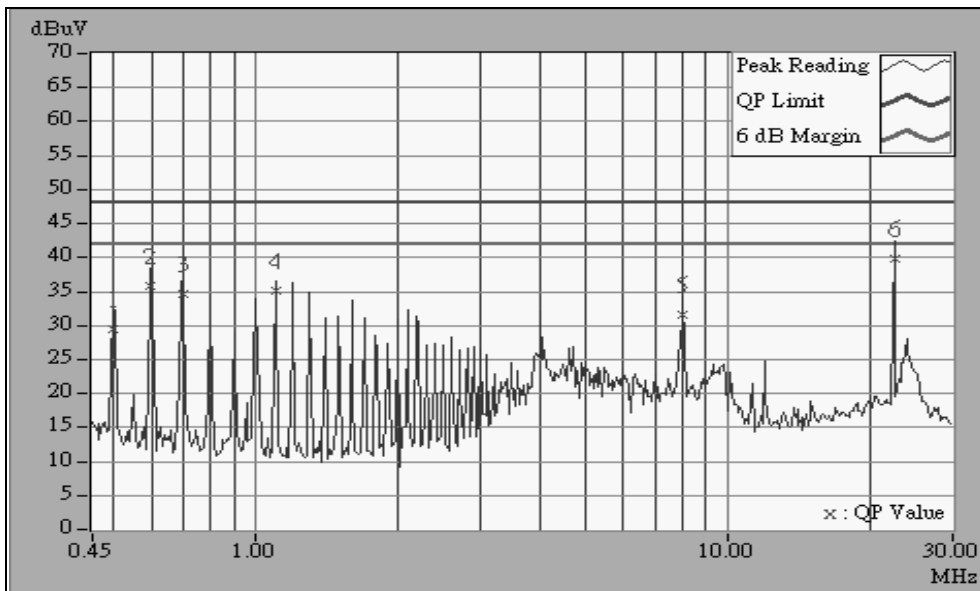


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.49688	0.12	29.50	-	29.62	-	48.00	-	-18.38	-
2	0.59844	0.13	35.73	-	35.86	-	48.00	-	-12.14	-
3	0.70000	0.15	34.71	-	34.86	-	48.00	-	-13.14	-
4	1.09766	0.20	35.15	-	35.35	-	48.00	-	-12.65	-
5	8.02734	0.37	31.48	-	31.85	-	48.00	-	-16.15	-
6	22.57031	0.95	39.79	-	40.74	-	48.00	-	-7.26	-

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.



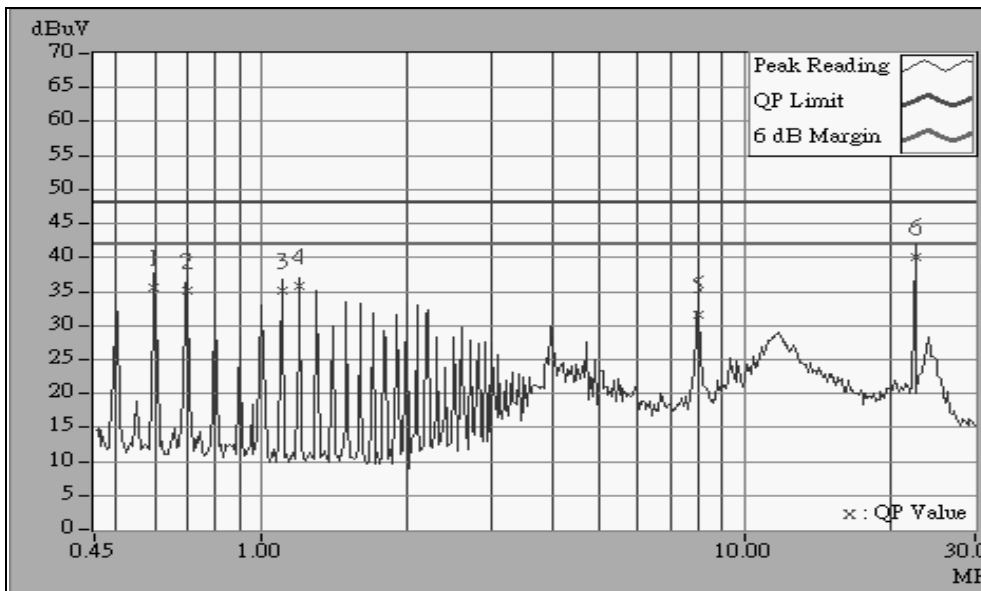


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.59844	0.13	35.59	-	35.72	-	48.00	-	-12.28	-
2	0.70000	0.15	35.11	-	35.26	-	48.00	-	-12.74	-
3	1.09766	0.20	35.19	-	35.39	-	48.00	-	-12.61	-
4	1.19922	0.20	35.72	-	35.92	-	48.00	-	-12.08	-
5	7.99609	0.37	31.61	-	31.98	-	48.00	-	-16.02	-
6	22.57031	0.55	40.08	-	40.63	-	48.00	-	-7.37	-

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.



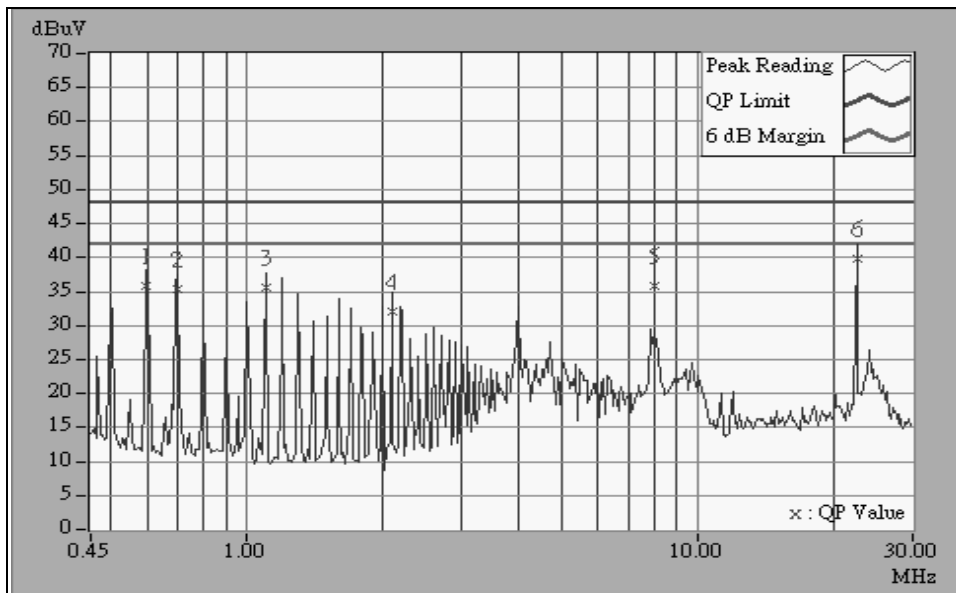


EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Netural (N)
ENVIRONMENTAL CONDITIONS	30 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

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	0.59844	0.13	35.85	-	35.98	-	48.00	-	-12.02	-
2	0.70000	0.15	35.38	-	35.53	-	48.00	-	-12.47	-
3	1.09766	0.20	35.62	-	35.82	-	48.00	-	-12.18	-
4	2.09766	0.20	31.97	-	32.17	-	48.00	-	-15.83	-
5	7.99219	0.37	35.81	-	36.18	-	48.00	-	-11.82	-
6	22.57031	0.95	39.82	-	40.77	-	48.00	-	-7.23	-

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.



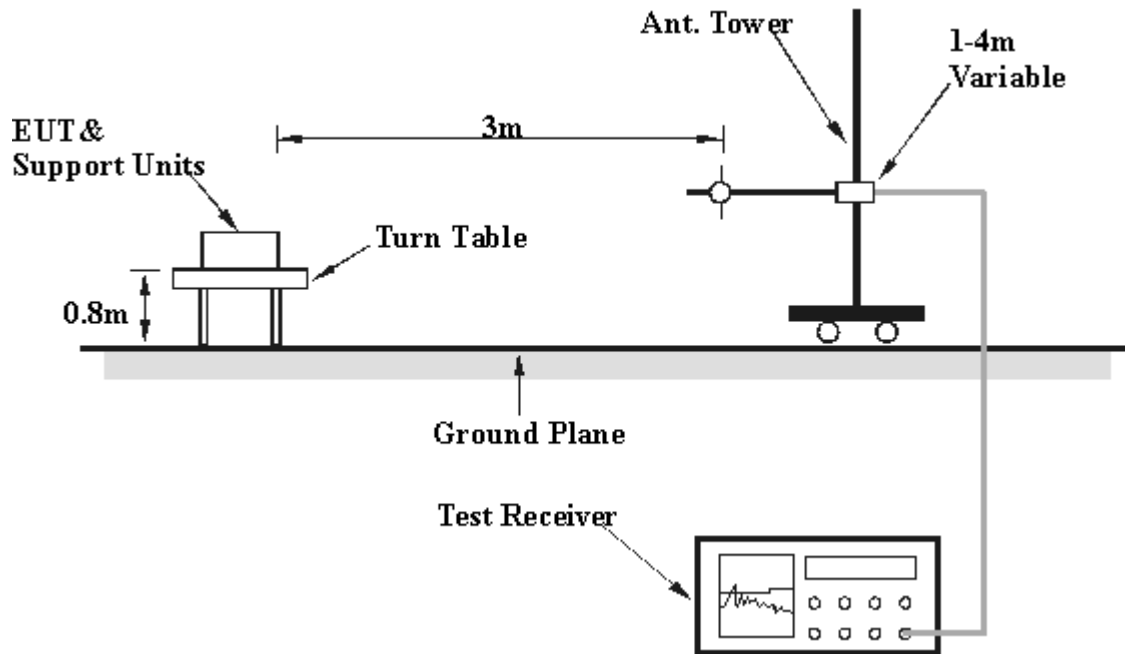
4.2.3 TEST PROCEDURES

- 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)

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	220.47	32.6 QP	46.00	-13.40	1.29H	173	20.80	10.26	1.52	0.00	-11.79
2	352.02	32.9 QP	46.00	-13.10	1.55H	151	16.50	14.31	2.05	0.00	-16.36
3	528.05	34.8 QP	46.00	-11.20	1.23H	43	14.60	17.62	2.60	0.00	-20.23
4	660.05	35.1 QP	46.00	-10.90	1.59H	315	12.80	19.25	3.05	0.00	-22.29
5	748.10	33.9 QP	46.00	-12.10	1.29H	176	10.50	20.14	3.26	0.00	-23.40
6	791.97	35.3 QP	46.00	-10.70	1.09H	254	11.40	20.60	3.31	0.00	-23.91
7	835.67	35.4 QP	46.00	-10.60	1.36H	141	11.40	20.54	3.45	0.00	-23.99

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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: Gary Chang	

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	264.70	32.6 QP	46.00	-13.40	1.36V	153	18.20	12.75	1.70	0.00	-14.45
2	396.54	36.7 QP	46.00	-9.30	1.61V	266	18.50	15.96	2.22	0.00	-18.18
3	500.78	34.1 QP	46.00	-11.90	1.80V	186	14.30	17.26	2.50	0.00	-19.76
4	528.04	34.4 QP	46.00	-11.60	1.49V	196	14.20	17.62	2.60	0.00	-20.22
5	748.21	34.2 QP	46.00	-11.80	1.34V	201	10.80	20.14	3.26	0.00	-23.40
6	836.03	34.4 QP	46.00	-11.60	2.09V	227	10.40	20.54	3.45	0.00	-23.99
7	880.12	33.6 QP	46.00	-12.40	1.65V	345	9.40	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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	47.0 PK	74.00	-27.00	1.82H	42	18.40	25.27	3.29	0.00	-28.57
2	*2413.00	105.8 PK	-	-	1.99H	285	75.00	27.19	3.62	0.00	-30.82
3	*2413.00	98.3 AV	-	-	1.99H	285	67.50	27.19	3.62	0.00	-30.82
4	4075.60	51.3 PK	74.00	-22.70	1.67H	318	16.40	30.18	4.77	0.00	-34.95
5	4824.40	51.8 PK	74.00	-22.20	1.21H	357	15.20	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	48.7 PK	74.00	-25.30	1.08V	151	20.11	25.27	3.29	0.00	-28.57
2	*2411.50	107.9 PK	-	-	1.10V	43	77.05	27.19	3.62	0.00	-30.81.
3	*2411.50	100.2 AV	-	-	1.10V	43	69.40	27.19	3.62	0.00	-30.81.
4	4074.50	49.8 PK	74.00	-24.20	1.13V	22	14.90	30.18	4.77	0.00	-34.96
5	4824.50	51.3 PK	74.00	-22.70	1.42V	46	14.70	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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	28 deg. C, 65 % RH, 1050 hPa	TESTED BY: 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	49.1 PK	74.00	-24.90	2.22H	57	20.40	25.39	3.31	0.00	-28.70
2	*2438.10	105.5 PK	-	-	2.06H	327	74.56	27.30	3.64	0.00	-30.94
3	*2438.10	97.3 AV	-	-	2.06H	327	66.33	27.30	3.64	0.00	-30.94
4	4125.00	50.3 PK	74.00	-23.70	1.75H	356	15.20	30.28	4.79	0.00	-35.07
5	4874.10	50.4 PK	74.00	-23.60	1.26H	152	13.70	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	2062.90	49.1 PK	74.00	-24.90	1.21V	78	20.40	25.39	3.31	0.00	-28.70
2	*2438.50	108.6 PK	-	-	1.37V	108	77.71	27.30	3.64	0.00	-30.94
3	*2438.50	101.3 AV	-	-	1.37V	108	70.40	27.30	3.64	0.00	-30.94
4	4125.50	50.3 PK	74.00	-23.70	1.20V	207	15.20	30.28	4.79	0.00	-35.07
5	4874.10	51.5 PK	74.00	-22.50	1.11V	313	14.80	31.47	5.25	0.00	-36.72
6	6188.30	49.5 PK	74.00	-24.50	1.16V	291	10.32	33.19	6.01	0.00	-39.20
7	8251.40	56.3 PK	74.00	-17.70	1.07V	256	12.55	36.70	7.01	0.00	-43.71.
8	8251.40	46.1 AV	54.00	-7.90	1.07V	256	2.40	36.70	7.01	0.00	-43.71

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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	2087.90	48.2 PK	54.00	-25.80	1.15H	338	19.40	25.50	3.33	0.00	-28.83
2	*2463.00	106.5 PK	-	-	2.02H	40	75.40	27.41	3.66	0.00	-31.07.
3	*2463.00	98.2 AV	-	-	2.02H	40	67.10	27.41	3.66	0.00	-31.07.
4	2483.50	48.8 PK	74.00	-25.20	1.57H	20	17.60	27.52	3.68	0.00	-31.20
5	4175.40	50.9 PK	74.00	-23.10	1.10H	338	15.70	30.38	4.81	0.00	-35.19
6	4924.70	51.0 PK	74.00	-23.00	1.17H	16	14.20	31.51	5.28	0.00	-36.81

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	49.4 PK	74.00	-24.60	1.02V	153	20.56	25.50	3.33	0.00	-28.83
2	*2463.10	108.5 PK	-	-	1.88V	348	77.40	27.41	3.66	0.00	-31.08
3	*2463.10	100.3 AV	-	-	1.88V	348	69.20	27.41	3.66	0.00	-31.08
4	2483.50	51.6 PK	74.00	-22.40	1.04V	318	20.40	27.52	3.68	0.00	-31.20
5	4175.50	50.6 PK	74.00	-23.40	1.25V	186	15.45	30.38	4.81	0.00	-35.19
6	4924.50	51.6 PK	74.00	-22.40	1.34V	168	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.



4.2.7 TEST RESULTS(B)

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	220.47	33.2 QP	46.00	-12.80	1.97H	155	21.40	10.26	1.52	0.00	-11.79
2	263.84	33.8 QP	46.00	-12.20	1.03H	7	19.20	12.89	1.70	0.00	-14.59
3	499.10	35.9 QP	46.00	-10.10	1.67H	92	16.20	17.22	2.50	0.00	-19.72
4	572.40	36.7 QP	46.00	-9.30	1.83H	91	15.70	18.25	2.75	0.00	-21.00
5	616.24	35.9 QP	46.00	-10.10	2.08H	76	14.20	18.82	2.89	0.00	-21.72
6	748.00	34.8 QP	46.00	-11.20	1.55H	176	11.40	20.14	3.26	0.00	-23.40
7	792.47	34.2 QP	46.00	-11.80	1.47H	50	10.30	20.60	3.31	0.00	-23.91

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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: Gary Chang	

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	220.70	31.2 QP	46.00	-14.80	1.37V	320	19.40	10.26	1.52	0.00	-11.79
2	484.10	36.1 QP	46.00	-9.90	1.83V	170	16.70	16.96	2.47	0.00	-19.44
3	572.48	33.8 QP	46.00	-12.20	2.06V	66	12.80	18.25	2.75	0.00	-21.01
4	660.40	37.5 QP	46.00	-8.50	1.84V	195	15.20	19.25	3.05	0.00	-22.30
5	748.20	35.1 QP	46.00	-10.90	2.11V	307	11.70	20.14	3.26	0.00	-23.40
6	792.40	33.4 QP	46.00	-12.60	1.68V	121	9.47	20.60	3.31	0.00	-23.91

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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 1	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	48.0 PK	74.00	-26.00	1.21H	254	19.45	25.27	3.29	0.00	-28.57
2	*2413.00	105.0 PK	-	-	1.02H	124	74.23	27.19	3.62	0.00	-30.82
3	*2413.00	98.3 AV	-	-	1.02H	124	67.50	27.19	3.62	0.00	-30.82
4	4075.30	50.7 PK	74.00	-23.30	1.54H	349	15.80	30.18	4.77	0.00	-34.95
5	4824.70	50.8 PK	74.00	-23.20	1.35H	4	14.20	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	2037.90	47.3 PK	74.00	-26.70	1.12V	30	18.70	25.27	3.29	0.00	-28.57
2	2412.90	103.8 PK	-	-	1.01V	343	72.98	27.19	3.62	0.00	-30.82
3	2412.90	93.2 AV	-	-	1.01V	343	62.40	27.19	3.62	0.00	-30.82
4	4075.50	50.3 PK	74.00	-23.70	1.58V	318	15.40	30.18	4.77	0.00	-34.95
5	4824.80	50.2 PK	74.00	-23.80	1.22V	68	13.54	31.43	5.21	0.00	-36.65
6	8151.10	54.1 PK	74.00	-19.90	1.35V	345	10.45	36.66	6.97	0.00	-43.64
7	8151.10	44.9 AV	54.00	-9.10	1.35V	345	1.30	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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 6	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	28 deg. C, 65 % RH, 1050 hPa	TESTED BY: 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	46.2 PK	74.00	-27.80	1.95H	144	17.52	25.39	3.31	0.00	-28.70
2	*2438.10	104.0 PK	-	-	1.96H	85	73.03	27.30	3.64	0.00	-30.94.
3	*2438.10	93.7 AV	-	-	1.96H	85	62.80	27.30	3.64	0.00	-30.94.
4	4125.60	50.8 PK	74.00	-23.20	1.00H	302	15.70	30.28	4.79	0.00	-35.07
5	4874.20	50.9 PK	74.00	-23.10	1.28H	134	14.17	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	49.4 PK	74.00	-24.60	1.12V	6	20.70	25.39	3.31	0.00	-28.70
2	*2438.00	100.3 PK	-	-	1.00V	326	69.35	27.30	3.64	0.00	-30.94
3	*2438.00	92.0 AV	-	-	1.00V	326	61.10	27.30	3.64	0.00	-30.94
4	4125.20	50.8 PK	74.00	-23.20	1.51V	234	15.70	30.28	4.79	0.00	-35.07
5	4874.20	50.3 PK	74.00	-23.70	1.20V	48	13.57	31.47	5.25	0.00	-36.73

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.



EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
MODE	Channel 11	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	30 deg. C, 60 % RH, 1050 hPa	TESTED BY: 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	2087.80	48.9 PK	74.00	-25.10	2.18H	198	20.10	25.50	3.33	0.00	-28.83
2	*2463.70	103.7 PK	-	-	1.97H	2	72.58	27.41	3.66	0.00	-31.08
3	*2463.70	95.8 AV	-	-	1.97H	2	64.70	27.41	3.66	0.00	-31.08
4	2483.50	51.3 PK	74.00	-22.70	1.58H	346	20.10	27.52	3.68	0.00	-31.20
5	4175.50	49.4 PK	74.00	-24.60	2.08H	339	14.20	30.38	4.81	0.00	-35.19
6	4924.70	50.6 PK	74.00	-23.40	1.15H	110	13.80	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	2087.90	49.0 PK	74.00	-25.00	1.11V	27	20.20	25.50	3.33	0.00	-28.83
2	*2463.00	102.3 PK	-	-	1.13V	359	71.21	27.41	3.66	0.00	-31.07
3	*2463.00	93.5 AV	-	-	1.13V	359	62.40	27.41	3.66	0.00	-31.07
4	2483.50	48.6 PK	74.00	-25.40	1.77V	306	17.40	27.52	3.68	0.00	-31.20
5	4175.50	50.4 PK	74.00	-23.60	1.44V	10	15.20	30.38	4.81	0.00	-35.19
6	4924.70	51.4 PK	74.00	-22.60	1.20V	285	14.60	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

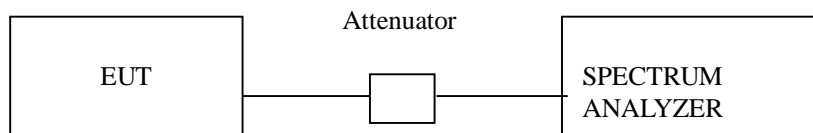
NOTE:

- 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.



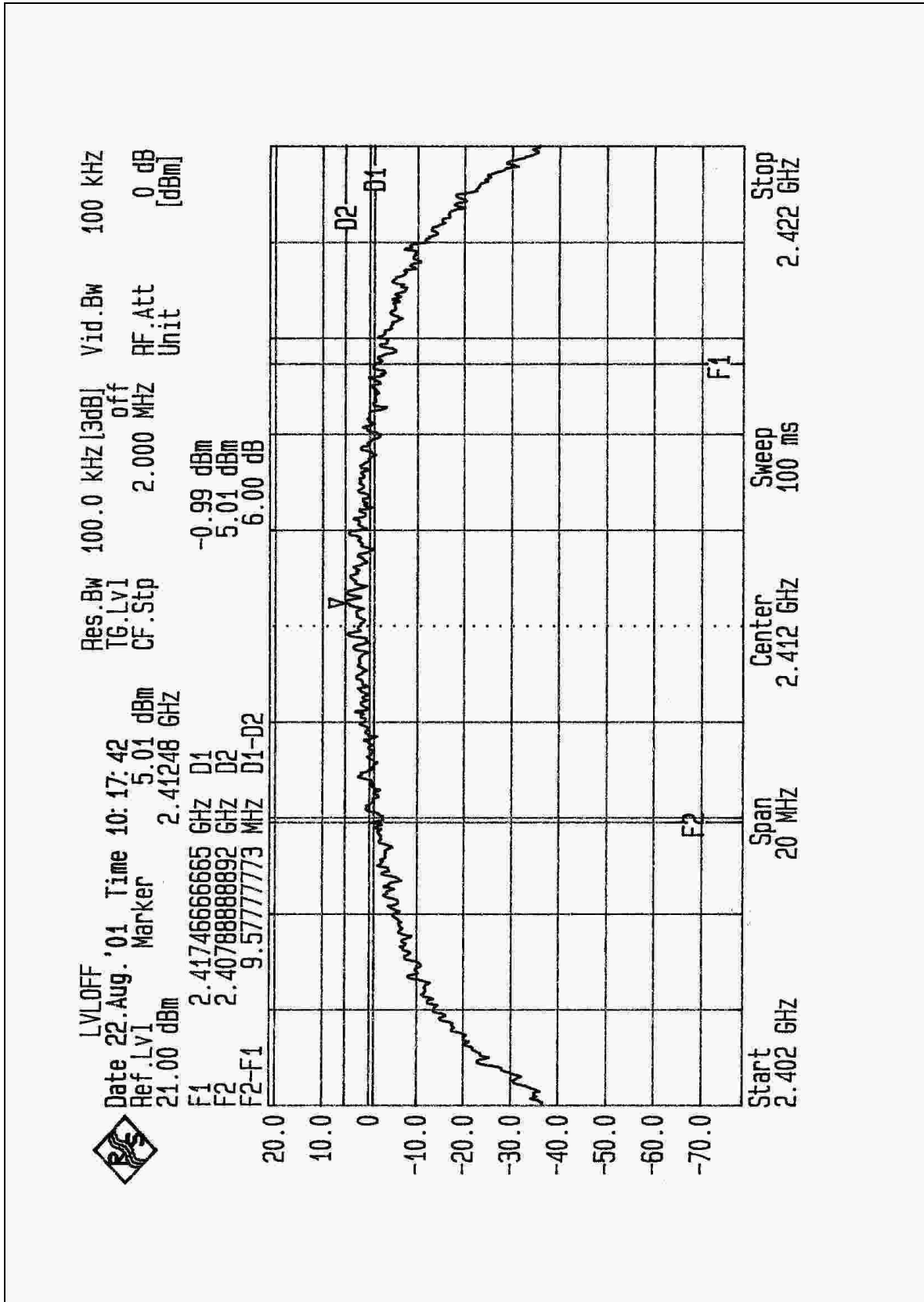
4.3.6 TEST RESULTS

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27 deg. C, 70%RH, 1005 hPa
TESTED BY: Gary Chang			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	9.58	0.5	PASS
6	2437	9.53	0.5	PASS
11	2462	9.62	0.5	PASS

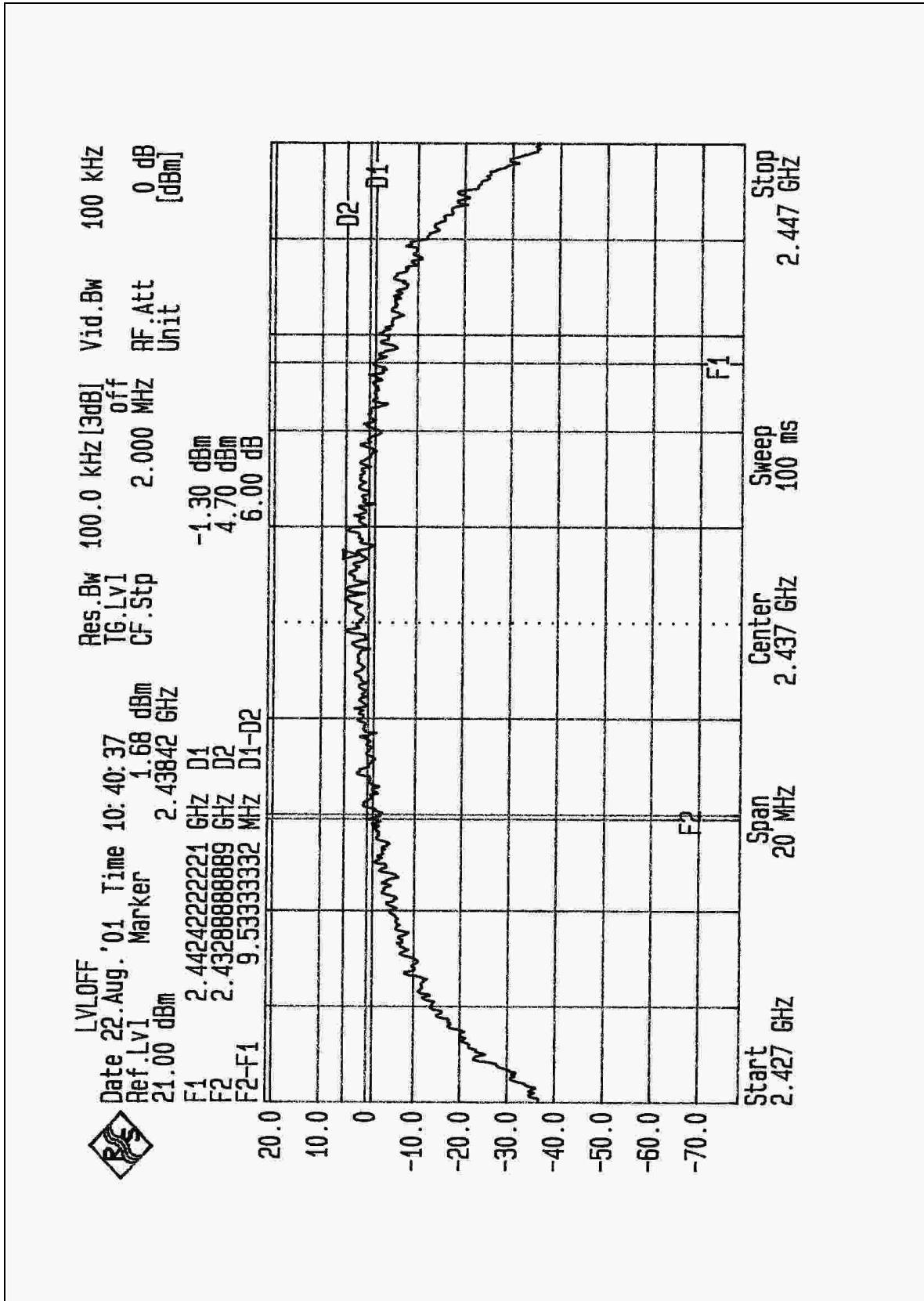


CH1



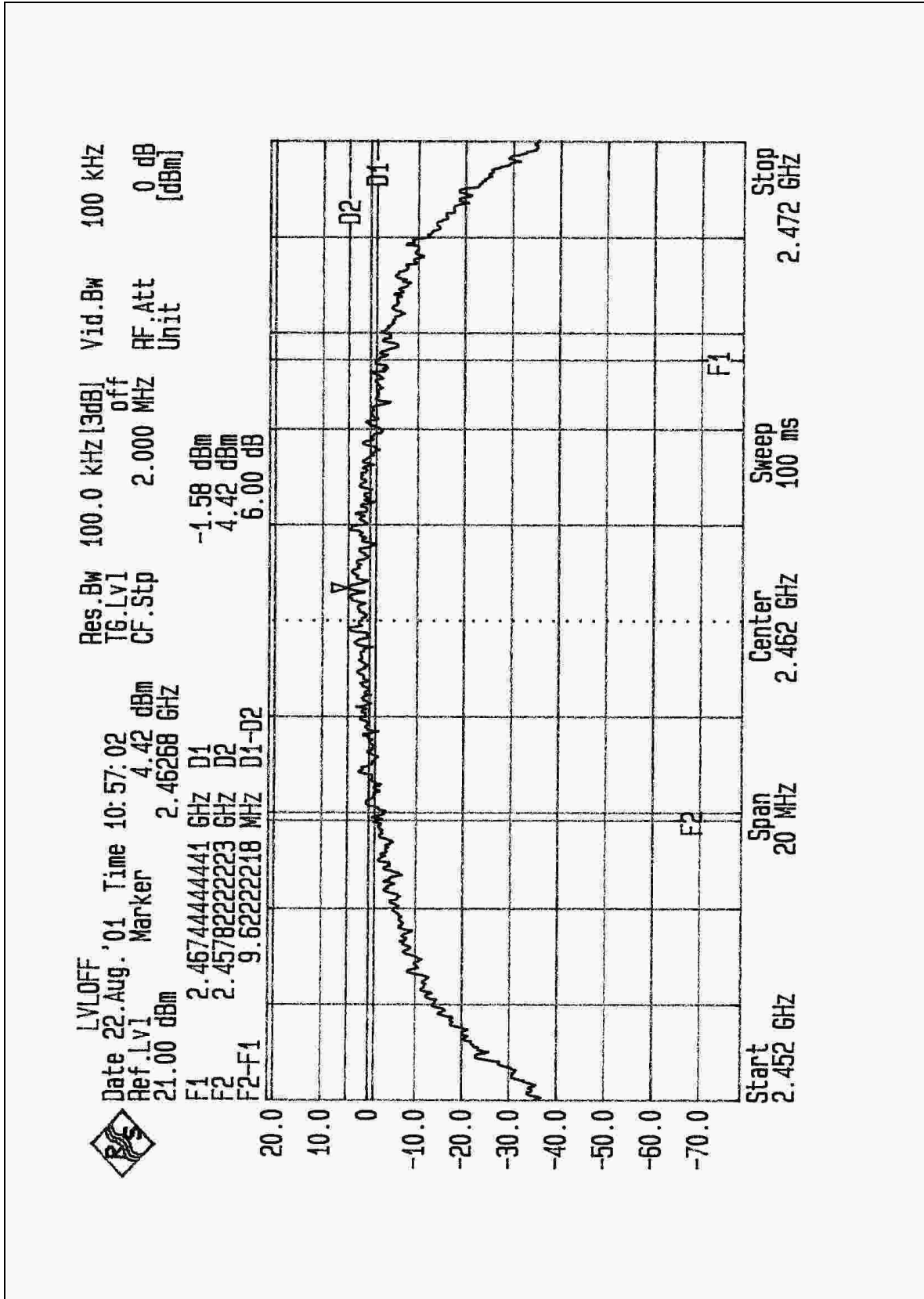


CH6





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:

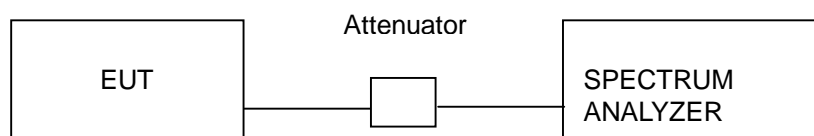
1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

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

EUT	IEEE802.11 Wireless LAN PCI Adapter	MODEL	PCI111200
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27 deg. C, 70%RH, 1005 hPa
TESTED BY: Gary Chang			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.51	30	PASS
6	2437	17.67	30	PASS
11	2462	17.51	30	PASS