FCC TEST REPORT

REPORT NO.: RF911122R04
MODEL NO.: T60H656
RECEIVED: Nov. 22, 2002
TESTED: Dec. 11 to 18, 2002

APPLICANT: AMBIT Microsytems Corporation

ADDRESS: 4-1,Ming-Sheng ST., Tu-Cheng Industrial Area, Tu-Cheng City, Taipei,Taiwan R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien, Taiwan, R.O.C.

0536
ILAC MRA

Lab Code: 200376-0

Table of Contents

1 CERTIFICATION

PRODUCT :	802.11b Wireless LAN MiniPCI Card
BRAND NAME :	AMBIT
MODEL NO. :	T60H656
APPLICANT :	AMBIT Microsytems Corporation
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 Dec. 11 to 18, 2002. 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.

CHECKED BY: Amanda Chu , **DATE:** *Dec. 20, 2002*

(Amanda Chu)

APPROVED BY: , **DATE:** *Dec. 20, 2002*

(Eric Lin, 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**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is –12.57dBuV at 0.191 MHz
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 –1.10dBuV at 352.00 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	802.11b Wireless LAN MiniPCI Card
MODEL NO.	T60H656
POWER SUPPLY	3.3VDC from host equipment
MODULATION TYPE	CCK, DBPSK, DQPSK
RADIO TECHNOLOGY	DSSS
TRANSFER RATE	1/2/5.5/11Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	11.50dBm
ANTENNA TYPE	PIFA antenna and Inverted-F antenna
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. There are six types of antennas provided to this EUT, please refer to the following table:

No.	*Model No.*	*Gain (dBi)*	*Antenna Type*	*Interface*
1	ANTB24-THIN-SO	-2.83	Inverted-F	Interface I: MiniPCI Type IIIB Interface II: The same with Interface I but with additional pin-sockets
2	HFDO4-R	-1.98	PIFA	
3	HFDO1-R	-2.33	PIFA	
4	BY27	+2.89	Inverted-F	
5	Pelican	+3.00	Inverted-F	
6	R:WDAN-Q1BM1002 L: WDAN-Q1BM1001	-1.35	PIFA	

2. 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. For radiated measurement, Interface I and Interface II were pre-tested in chamber, the Interface II, worst case one, was chosen for final test. Test result (A) is for antenna 1, test result (B) is for antenna 2, test result (C) is for antenna 3, test result (D) is for antenna 4 test result (E) is for antenna 5 and test result (F) is for antenna 6, which were mentioned on section 3.1.
2. 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.
3. Above 1 GHz, the channel 1, 6, and 11 were tested individually.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a 802.11b Wireless LAN MiniPCI 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.

Interface I:

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	NOTEBOOK COMPUTER	Sony	PCG-8E2A PVT UTA-9	*2500PUTA 0000002*	NA
2	PRINTER	HP	C2642A	MY7961C1K3	B94C2642X

No.	Signal cable description
1	NA
2	1.4m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core

Interface II:

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	PERSONAL COMPUTER	NTI	Piii-500	P201167	NA
2	MONITOR	ADI	937G	83201CT20100199	BR8937G
3	PRINTER	HP	C2642A	MY7961C1K3	B94C2642X
4	MODEM	ACEEX	1414	980020554	IFAXDM1414
5	KEYBOARD	FORWARD	FDA-104GA	FDKB8110048	F4ZDA-104G
6	MOUSE	CHIC	C17	990014662	IOWCM-USB
7	AC Adapter	Sony	PCGA-AC19V	NA	NA

No.	Signal cable description
1	NA
2	1.5 m braid shielded wire, terminated with VGA connector via metallic frame, w/o core.
3	1.4m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
4	1.0m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.4 m foil shielded wire, terminal by frame, PS2 Connector, w/o Core.
6	1.5 m foil shielded wire, terminal by frame, PS2 Connector, w/o Core.
7	NA

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

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)	
	Quasi-peak	Average
0.15-0.5 0.5-5 5-30	66 to 56 56 60	56 to 46 46 50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DATE
ROHDE & SCHWARZ Test Receiver	ESCS 30	847124/029	Dec. 21, 2002
ROHDE & SCHWARZ LISN (for EUT)	ESHS-Z5	848773/004	Nov. 13, 2003
KYORITSU LISN (for peripheral)	KNW-407	8/1395/12	Jul. 23, 2003
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 03, 2003
Terminator(for KYORITSU)	50	#1	Apr. 11, 2003
Software	Cond-V2e	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in ADT Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.

4.1.2 TEST PROCEDURES

a. 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.

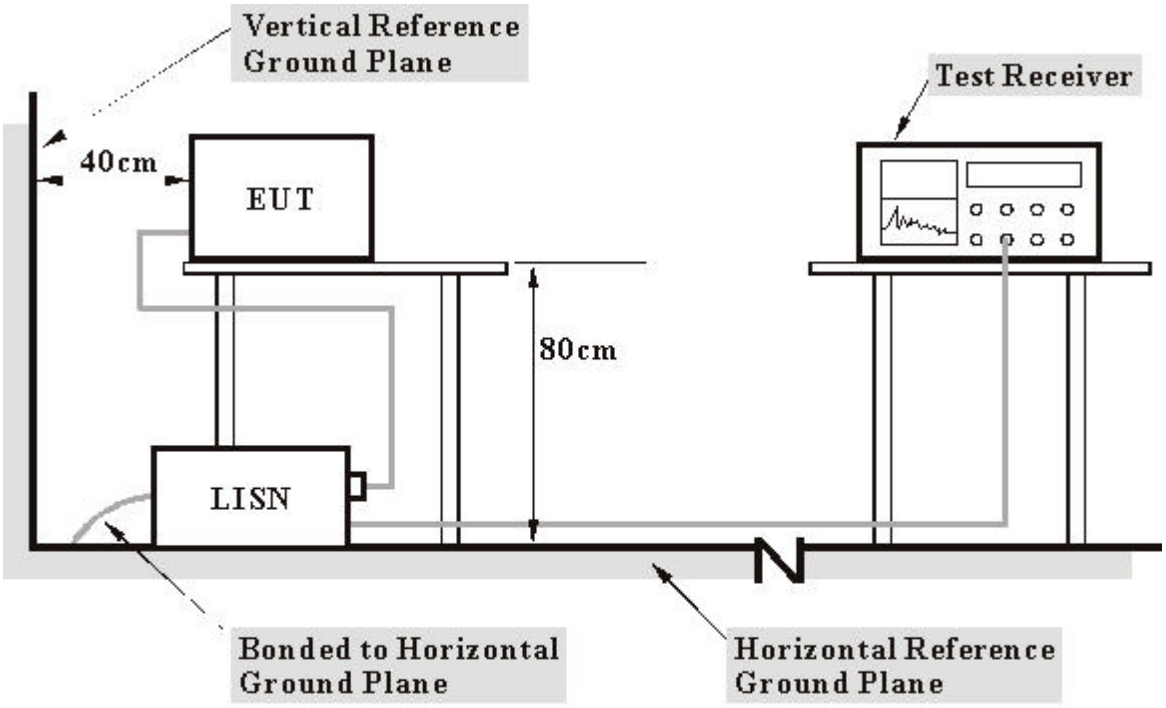
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



Note: 1. Support units were connected to second LISN.
2. 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

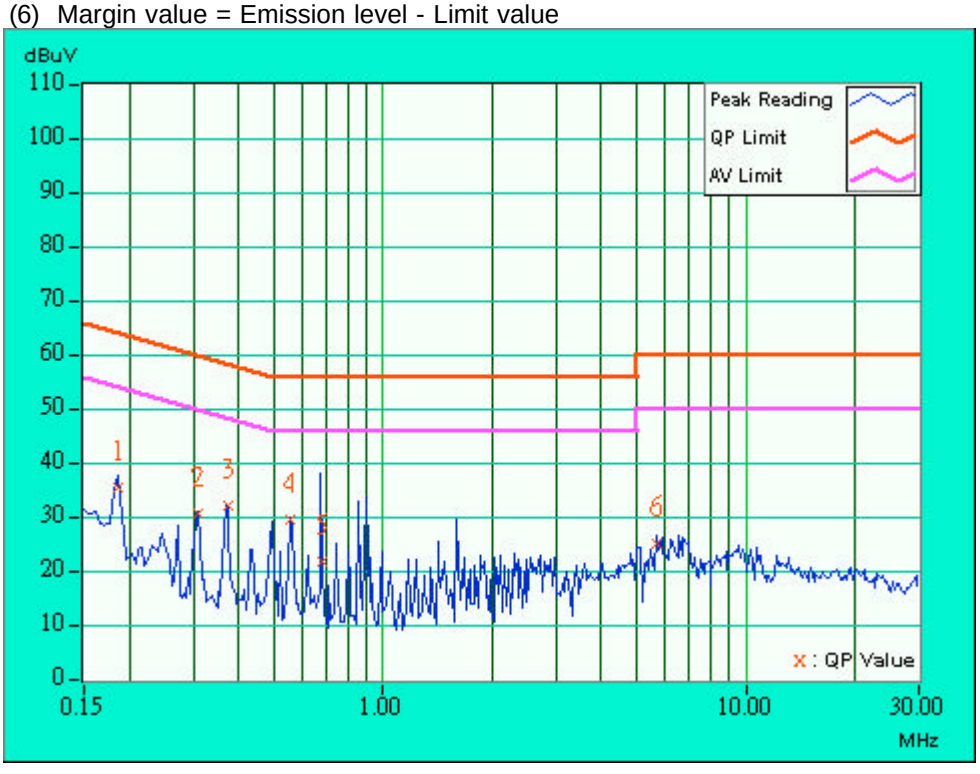
a. Plug the EUT into the PCI extender which connected to a computer system placed on a testing table.
b. The computer system ran a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The computer system sent "H" messages to its screen.
d. The 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)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	35.02	-	35.12	-	64.25	54.25	-29.13	-
2	0.310	0.10	30.37	-	30.47	-	59.97	49.97	-29.50	-
3	0.373	0.10	31.77	-	31.87	-	58.44	48.44	-26.57	-
4	0.556	0.10	29.11	-	29.21	-	56.00	46.00	-26.79	-
5	0.681	0.10	21.36	-	21.46	-	56.00	46.00	-34.54	-
6	5.694	0.36	24.71	-	25.07	-	60.00	50.00	-34.93	-

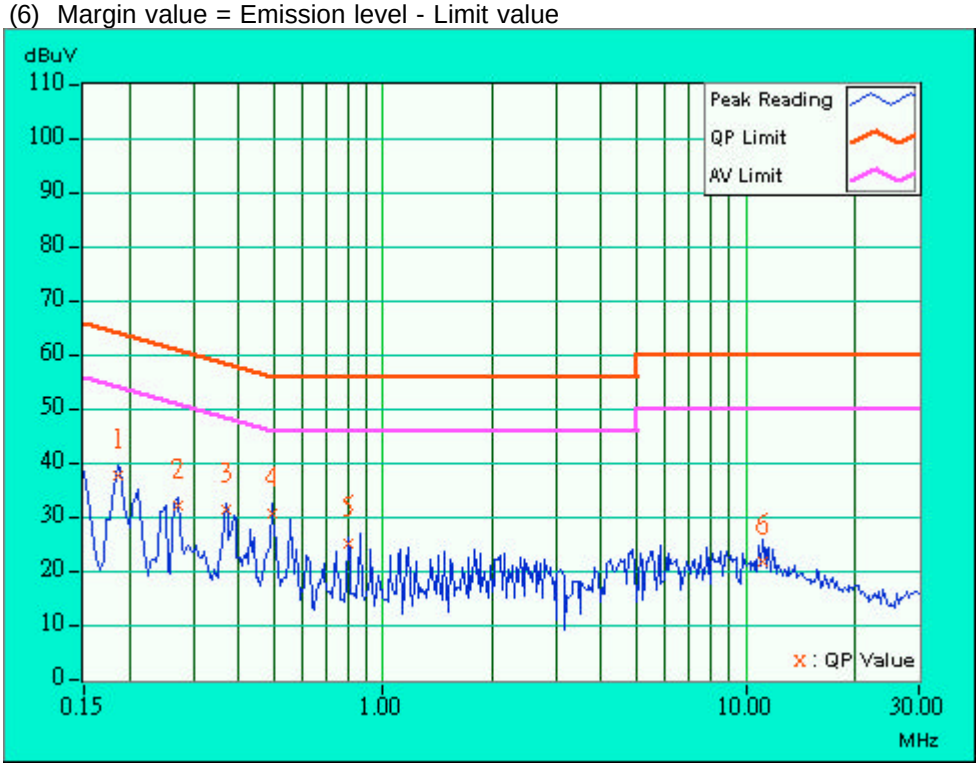
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	37.14	-	37.24	-	64.25	54.25	-27.01	-
2	0.271	0.10	31.72	-	31.82	-	61.08	51.08	-29.26	-
3	0.369	0.10	31.13	-	31.23	-	58.53	48.53	-27.30	-
4	0.494	0.10	30.38	-	30.48	-	56.10	46.10	-25.62	-
5	0.802	0.10	24.59	-	24.69	-	56.00	46.00	-31.31	-
6	11.160	0.52	21.46	-	21.98	-	60.00	50.00	-38.02	-

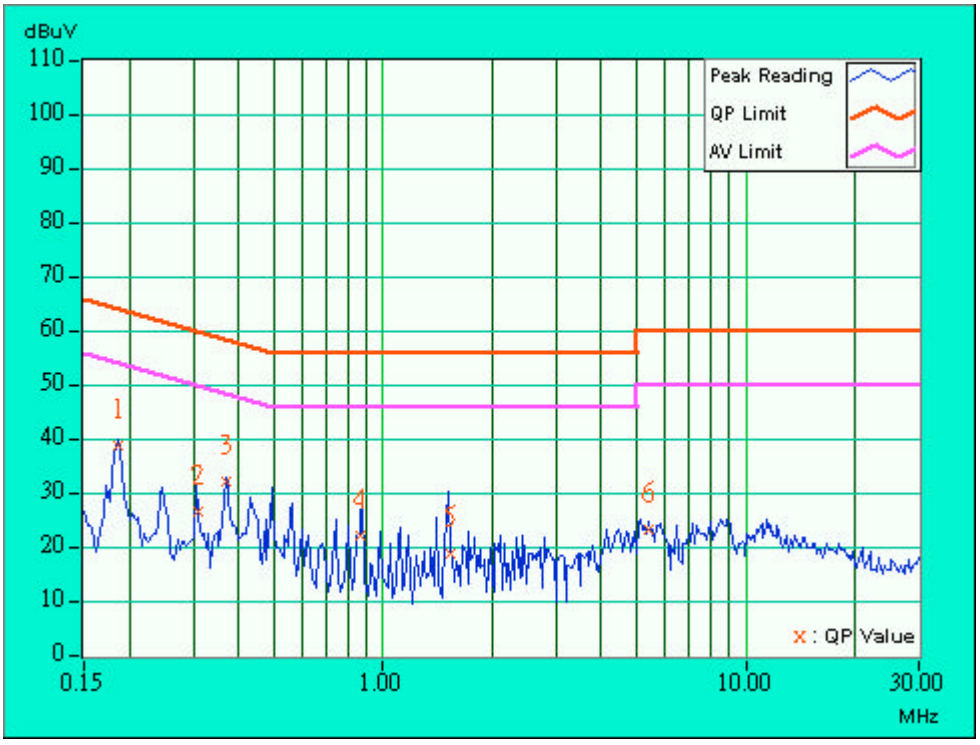
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	38.41	-	38.51	-	64.25	54.25	-25.74	-
2	0.308	0.10	26.25	-	26.35	-	60.04	50.04	-33.69	-
3	0.369	0.10	31.99	-	32.09	-	58.53	48.53	-26.44	-
4	0.866	0.10	21.71	-	21.81	-	56.00	46.00	-34.19	-
5	1.543	0.10	18.59	-	18.69	-	56.00	46.00	-37.31	-
6	5.367	0.35	22.86	-	23.21	-	60.00	50.00	-36.79	-

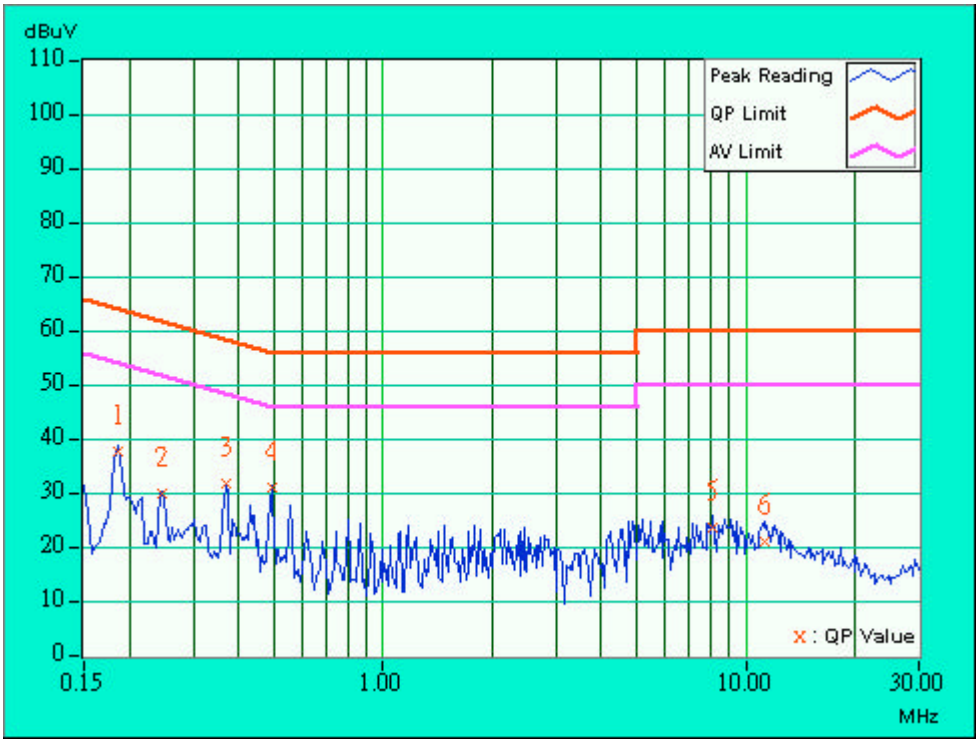
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	37.29	-	37.39	-	64.25	54.25	-26.86	-
2	0.248	0.10	29.36	-	29.46	-	61.84	51.84	-32.38	-
3	0.369	0.10	31.43	-	31.53	-	58.53	48.53	-27.00	-
4	0.494	0.10	30.58	-	30.68	-	56.10	46.10	-25.42	-
5	8.137	0.47	23.20	-	23.67	-	60.00	50.00	-36.33	-
6	11.230	0.52	20.61	-	21.13	-	60.00	50.00	-38.87	-

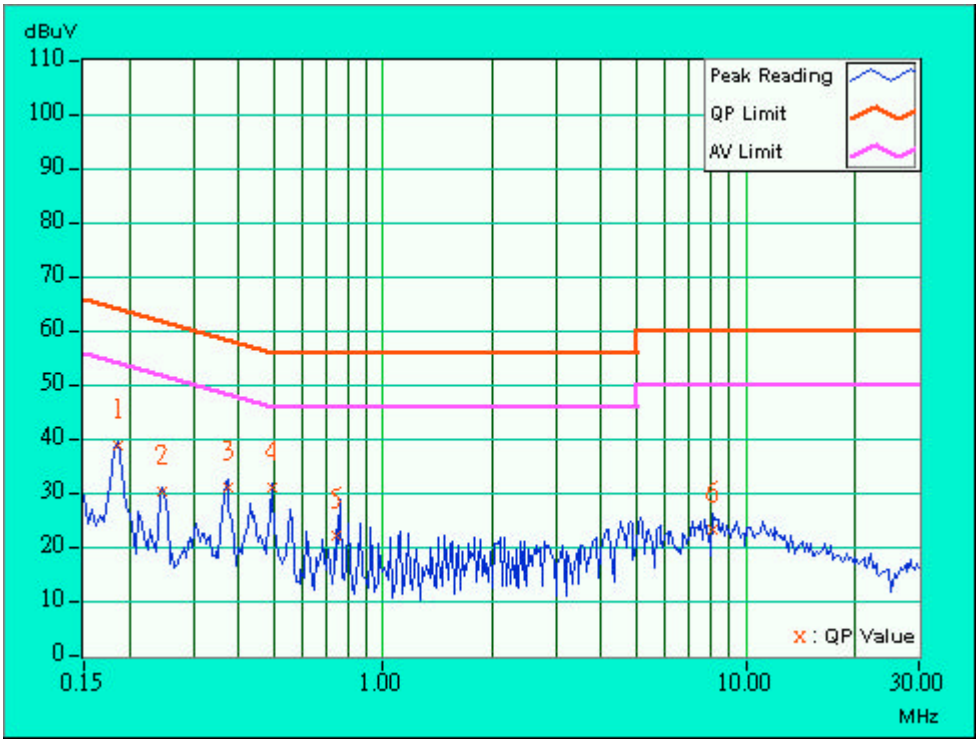
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	38.17	-	38.27	-	64.25	54.25	-25.98	-
2	0.248	0.10	29.86	-	29.96	-	61.84	51.84	-31.88	-
3	0.373	0.10	30.69	-	30.79	-	58.44	48.44	-27.65	-
4	0.494	0.10	30.58	-	30.68	-	56.10	46.10	-25.42	-
5	0.741	0.10	21.72	-	21.82	-	56.00	46.00	-34.18	-
6	8.148	0.54	22.80	-	23.34	-	60.00	50.00	-36.66	-

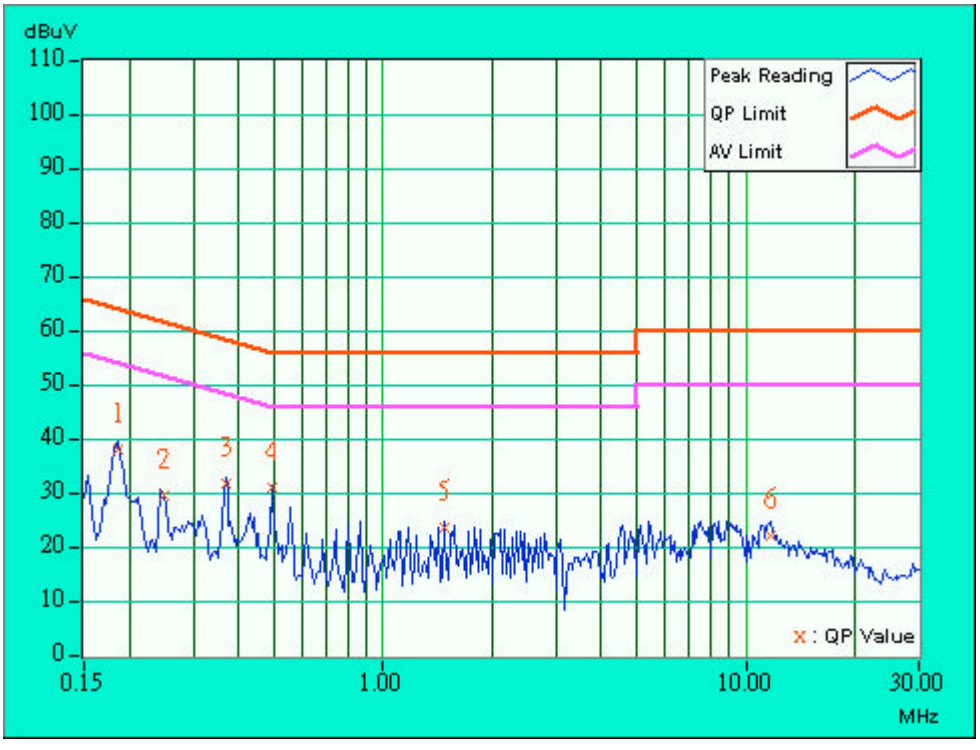
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface I), Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.185	0.10	37.44	-	37.54	-	64.25	54.25	-26.71	-
2	0.248	0.10	28.93	-	29.03	-	61.81	51.81	-32.78	-
3	0.369	0.10	31.31	-	31.41	-	58.53	48.53	-27.12	-
4	0.494	0.10	30.52	-	30.62	-	56.10	46.10	-25.48	-
5	1.478	0.10	22.99	-	23.09	-	56.00	46.00	-32.91	-
6	11.777	0.54	21.70	-	22.24	-	60.00	50.00	-37.76	-

NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value

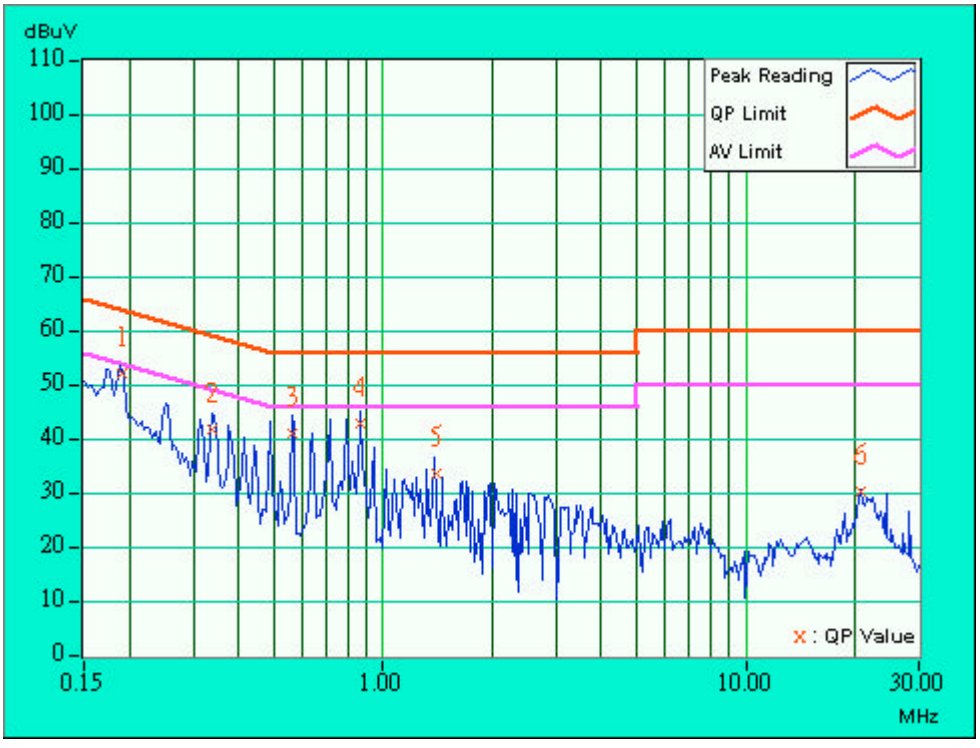


4.1.7 TEST RESULTS (B)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	22 deg. C, 53%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	**0.191**	**0.10**	**51.33**	**-**	**51.43**	**-**	**64.00**	**54.00**	**-12.57**	**-**
2	0.339	0.10	40.84	-	40.94	-	59.23	49.23	-18.29	-
3	0.564	0.10	40.04	-	40.14	-	56.00	46.00	-15.86	-
4	0.866	0.10	41.85	-	41.95	-	56.00	46.00	-14.05	-
5	1.411	0.10	32.50	-	32.60	-	56.00	46.00	-23.40	-
6	20.656	1.03	29.41	-	30.44	-	60.00	50.00	-29.56	-

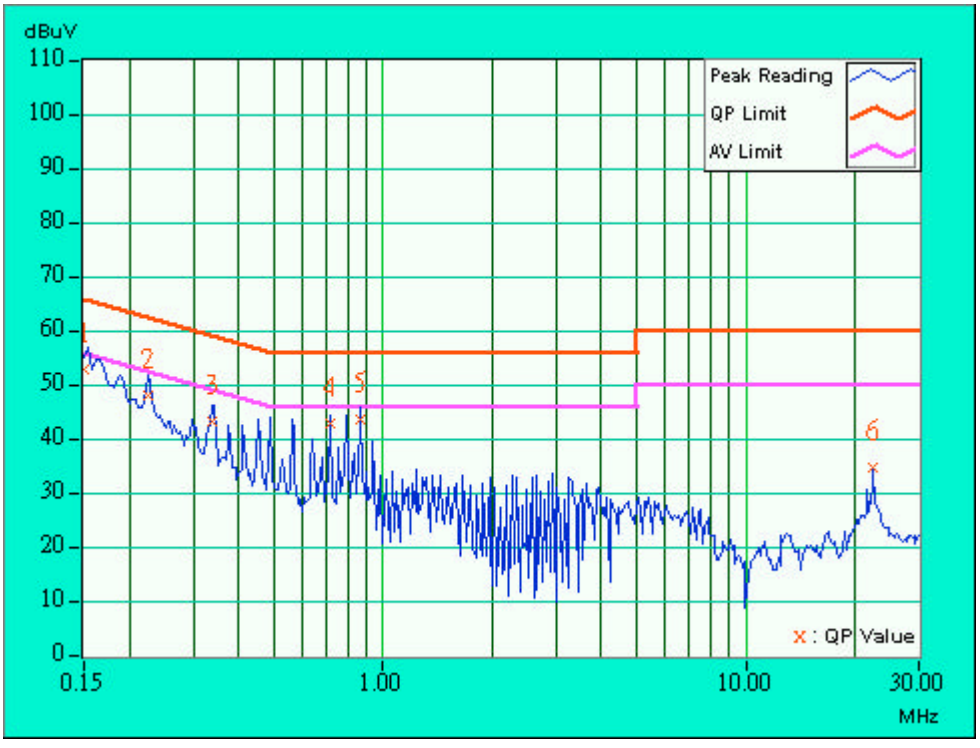
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.150	0.10	51.99	-	52.09	-	66.00	56.00	-13.91	-
2	0.226	0.10	47.23	-	47.33	-	62.59	52.59	-15.26	-
3	0.338	0.10	42.53	-	42.63	-	59.26	49.26	-16.63	-
4	0.715	0.10	42.26	-	42.36	-	56.00	46.00	-13.64	-
5	0.866	0.10	43.04	-	43.14	-	56.00	46.00	-12.86	-
6	22.535	0.80	34.09	-	34.89	-	60.00	50.00	-25.11	-

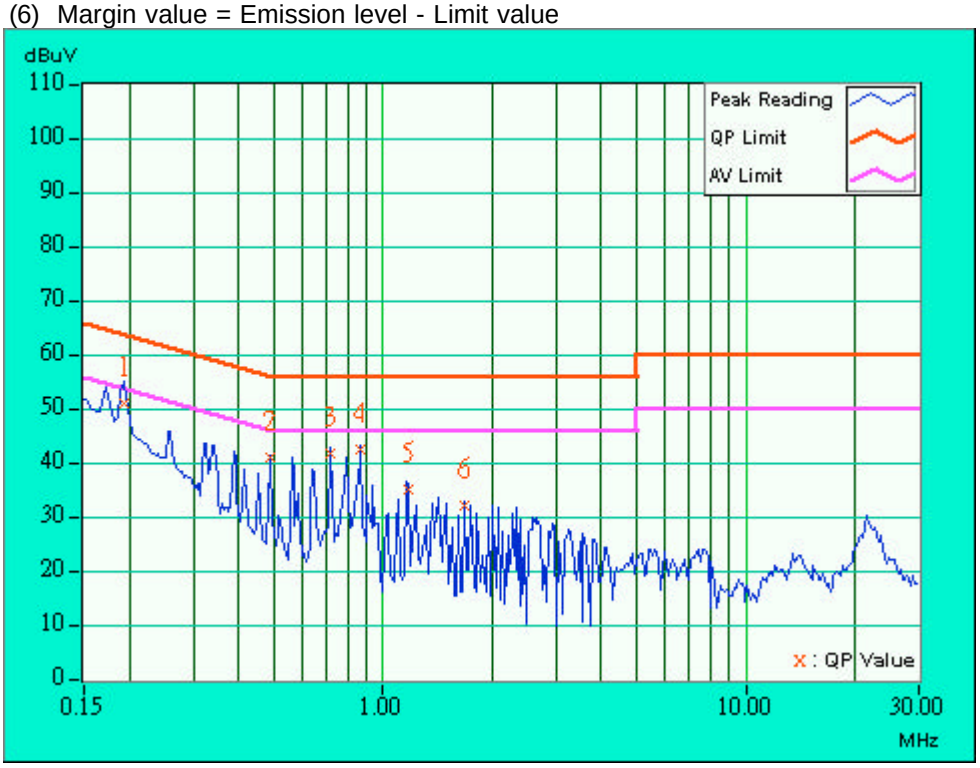
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.193	0.10	50.98	-	51.08	-	63.91	53.91	-12.83	-
2	0.490	0.10	41.00	-	41.10	-	56.17	46.17	-15.07	-
3	0.716	0.10	41.85	-	41.95	-	56.00	46.00	-14.05	-
4	0.865	0.10	42.56	-	42.66	-	56.00	46.00	-13.34	-
5	1.168	0.10	35.25	-	35.35	-	56.00	46.00	-20.65	-
6	1.685	0.10	32.17	-	32.27	-	56.00	46.00	-23.73	-

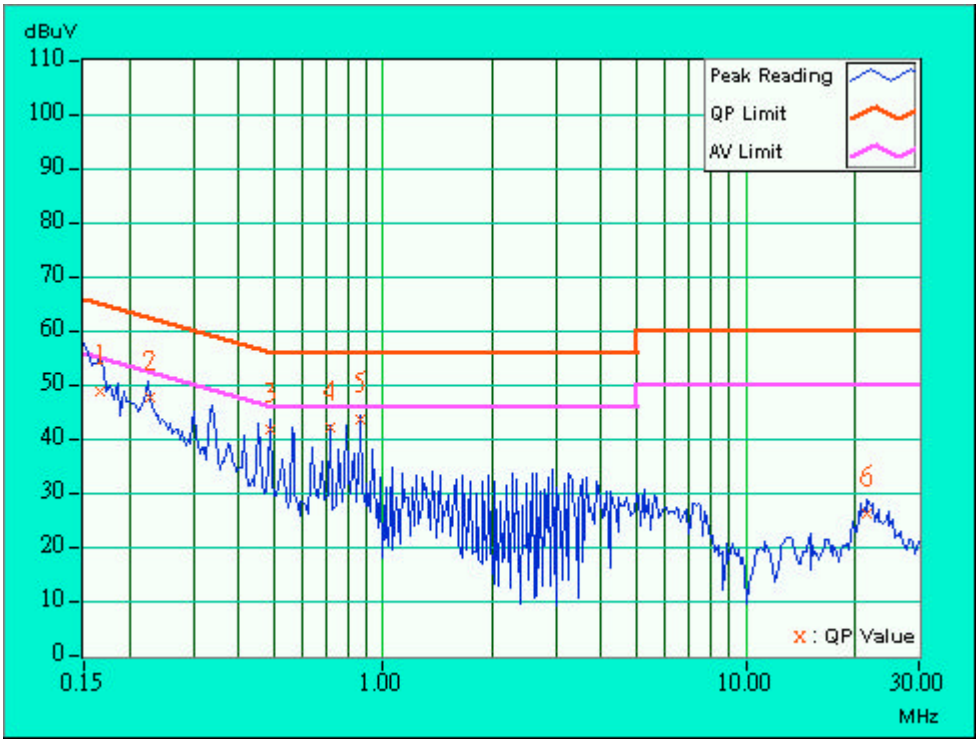
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.165	0.10	48.01	-	48.11	-	65.19	55.19	-17.08	-
2	0.227	0.10	47.01	-	47.11	-	62.57	52.57	-15.46	-
3	0.490	0.10	41.21	-	41.31	-	56.17	46.17	-14.86	-
4	0.713	0.10	41.30	-	41.40	-	56.00	46.00	-14.60	-
5	0.866	0.10	43.00	-	43.10	-	56.00	46.00	-12.90	-
6	21.609	0.76	25.48	-	26.24	-	60.00	50.00	-33.76	-

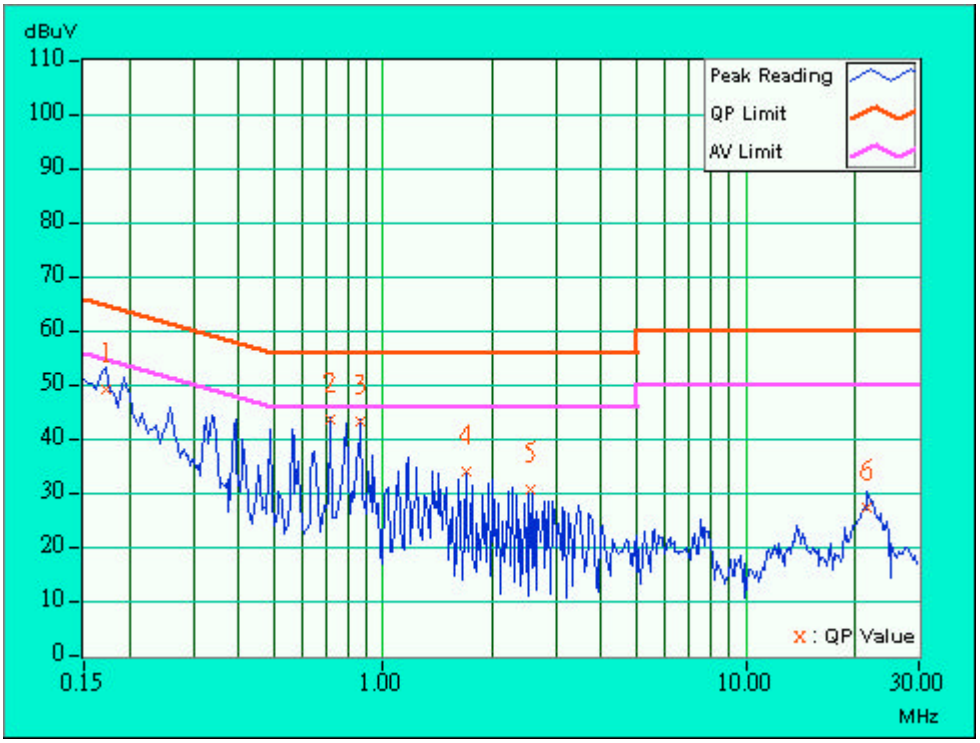
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.173	0.10	48.35	-	48.45	-	64.80	54.80	-16.35	-
2	0.716	0.10	42.56	-	42.66	-	56.00	46.00	-13.34	-
3	0.866	0.10	42.33	-	42.43	-	56.00	46.00	-13.57	-
4	1.689	0.10	32.98	-	33.08	-	56.00	46.00	-22.92	-
5	2.535	0.13	29.54	-	29.67	-	56.00	46.00	-26.33	-
6	21.598	1.06	26.50	-	27.56	-	60.00	50.00	-32.44	-

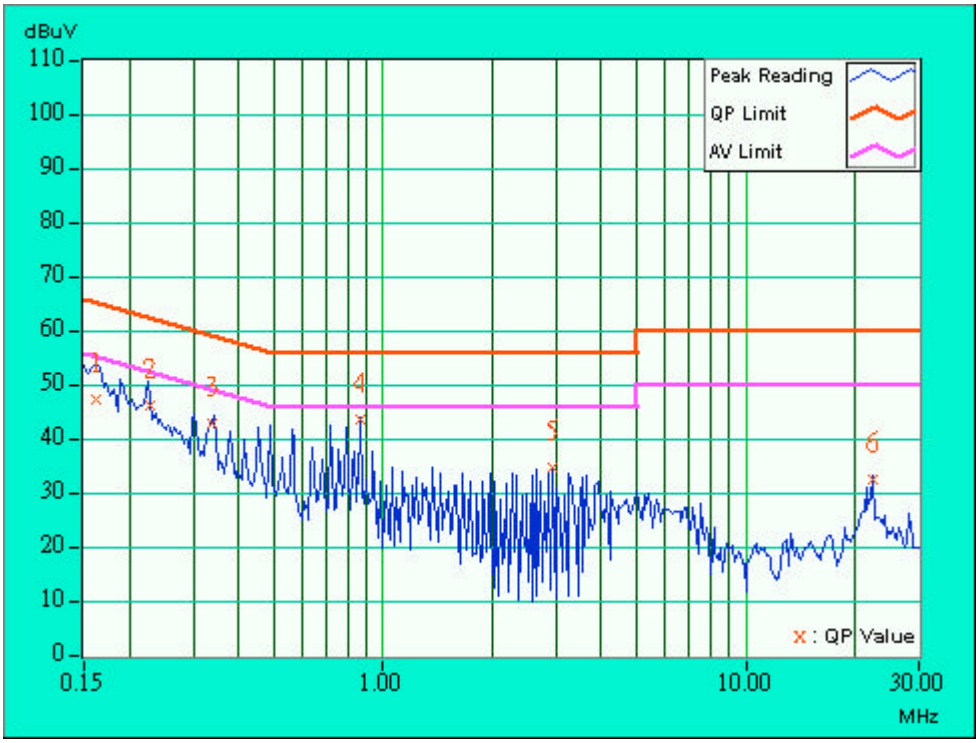
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, (Interface II), Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 972 hPa	**TESTED BY**	Bruce Shiau

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	0.162	0.10	46.43	-	46.53	-	65.38	55.38	-18.85	-
2	0.229	0.10	45.66	-	45.76	-	62.48	52.48	-16.72	-
3	0.339	0.10	42.29	-	42.39	-	59.23	49.23	-16.84	-
4	0.865	0.10	43.02	-	43.12	-	56.00	46.00	-12.88	-
5	2.947	0.15	33.96	-	34.11	-	56.00	46.00	-21.89	-
6	22.539	0.80	31.79	-	32.59	-	60.00	50.00	-27.41	-

NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



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	Field Strength of Fundamental	
(MHz)	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.	CALIBRATION DATE
*HP Spectrum Analyzer	8590L	3467U00646	Aug. 28, 2003
*ADVANTEST Spectrum Analyzer	R3271A	85060311	May 21, 2003
CHASE RF Pre_Amplifier	CPA9232	1010	Feb. 22, 2003
*HP Pre_Amplifier	8449B	3008A01281	Jun. 27, 2003
*ROHDE & SCHWARZ Test Receiver	ESVS 30	841977/002	Jan. 14, 2003
*CHASE Broadband Antenna	CBL6112B	2798	May 17, 2003
*Schwarzbeck Horn_Antenna	BBHA9120-D1	D123	Jul. 31, 2003
SCHWARZBECK Tunable Dipole Antenna	UHAP	896	Mar. 07, 2003
SCHWARZBECK Tunable Dipole Antenna	VHAP	879	Mar. 07, 2003
*RF Switches	MP59B	1-5161-28698	Jul. 29, 2003
*RF CABLE (Chaintek) 1GHz-20GHz	Ak 9515-D	001	Aug, 20.2003
*RF Cable(CHASE)	CH A9525	STBCAB-30M-1GHz-021	Jul. 29, 2003
*Software	AS60P8	NA	NA
*CHANCE MOST Antenna Tower	AT-100	CM-A007	NA
*CHANCE MOST Turn Table	TC-008	CM-T007	NA
*CORCOM AC Filter	MRI2030	024/019	NA
*BAND REJECT FILTER	WRCT2400/2483-2375/2505-30/10SS	SN1	NA
Highpass filter	WHK3600/8000-5SS	SN4	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. * = These equipment are used for the final measurement.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The test was performed in ADT Open Site No. B.
5. The VCCI Site Registration No. is R-847.
6. The FCC Site Registration No. is 92753.

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.

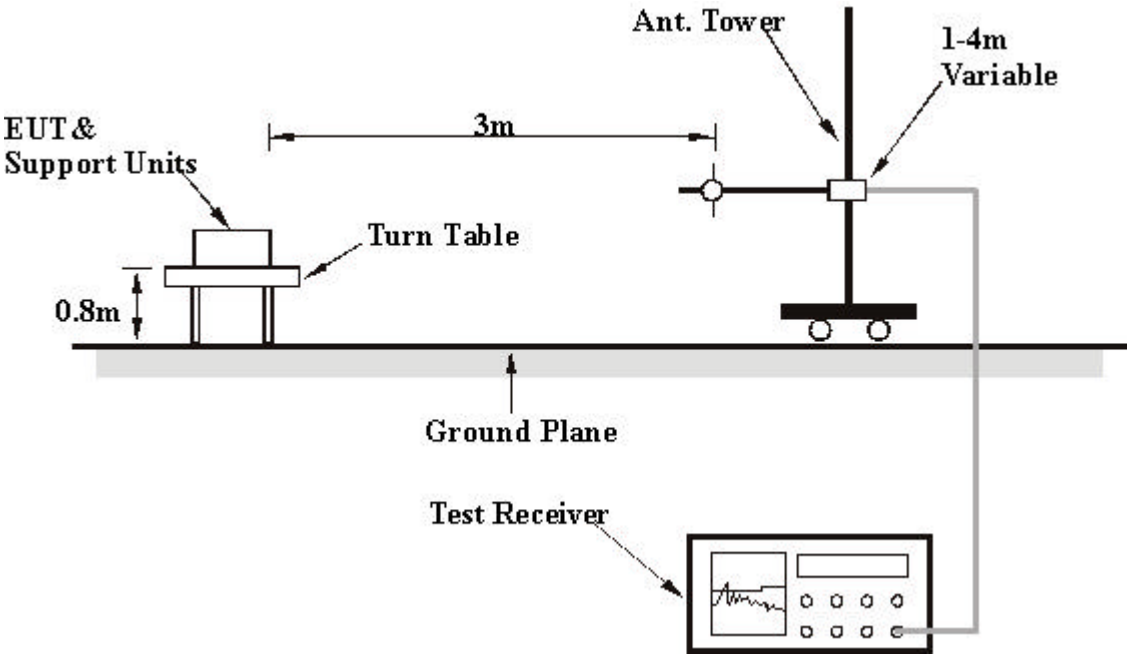
NOTE:

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 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6 .

4.2.7 TEST RESULTS (A)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	18 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.00	36.1 QP	43.50	-7.40	1.25 H	200	24.20	11.90
2	176.00	38.8 QP	43.50	-4.70	1.48 H	145	29.60	9.20
3	198.00	39.5 QP	43.50	-4.00	1.39 H	288	30.30	9.20
4	220.00	40.2 QP	46.00	-5.80	1.26 H	225	31.30	8.90
5	231.00	36.4 QP	46.00	-9.60	1.54 H	263	26.30	10.10
6	308.00	42.7 QP	46.00	-3.30	1.26 H	235	27.70	15.00
7	**352.00**	**44.9 QP**	**46.00**	**-1.10**	**1.13 H**	**217**	**29.80**	**15.10**
8	396.00	42.5 QP	46.00	-3.50	1.00 H	191	26.50	15.90
9	440.00	43.9 QP	46.00	-2.10	1.23 H	200	26.20	17.70

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)	Correction Factor (dB/m)
1	132.00	37.3 QP	43.50	-6.20	1.00 V	262	25.40	11.90
2	176.00	32.5 QP	43.50	-11.00	1.00 V	155	23.30	9.20
3	198.01	39.0 QP	43.50	-4.50	1.00 V	230	29.90	9.20
4	220.00	37.8 QP	46.00	-8.20	1.26 V	61	28.90	8.90
5	231.01	36.3 QP	46.00	-9.70	1.14 V	162	26.10	10.10
6	264.00	39.0 QP	46.00	-7.00	1.02 V	272	26.70	12.30
7	308.00	42.9 QP	46.00	-3.10	1.00 V	65	27.90	15.00
9	352.00	43.6 QP	46.00	-2.40	1.00 V	110	28.50	15.10
10	396.00	35.7 QP	46.00	-10.30	1.40 V	196	19.70	15.90
11	440.00	37.4 QP	46.00	-8.60	1.62 V	288	19.70	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	19 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2387.50	52.0 PK	74.00	-22.00	1.20 H	16	16.10	35.80
1	2387.50	48.8 AV	54.00	-5.20	1.20 H	16	13.00	35.80
2	*2412.00	97.5 PK			1.79 H	310	61.60	35.90
2	*2412.00	93.4 AV			1.79 H	310	57.50	35.90
3	2490.00	37.7 PK	74.00	-36.30	1.20 H	17	1.50	36.20
4	4824.00	50.7 PK	74.00	-23.30	1.78 H	58	7.60	43.10

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)	Correction Factor (dB/m)
1	2388.00	46.6 PK	74.00	-27.40	1.02 V	200	10.80	35.80
2	*2412.00	99.3 PK			1.09 V	229	63.40	35.90
2	*2412.00	97.7 AV			1.09 V	229	61.80	35.80
3	2490.00	33.0 PK	74.00	-41.00	1.05 V	50	-3.20	36.20
4	4824.00	50.0 PK	74.00	-24.00	1.06 V	350	6.90	43.10

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2350.00	40.2 PK	74.00	-33.80	1.11 H	170	4.50	35.70
2	*2437.00	101.9 PK			1.48 H	11	65.90	36.00
2	*2437.00	97.6 AV			1.48 H	11	61.60	35.70
3	2489.00	39.3 PK	74.00	-34.70	1.20 H	210	3.10	36.20
4	4874.00	51.8 PK	74.00	-22.20	1.22 H	56	8.60	43.20
4	4874.00	47.6 AV	54.00	-6.40	1.22 H	56	4.40	36.00

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)	Correction Factor (dB/m)
1	2350.00	38.7 PK	74.00	-35.30	1.19 V	301	3.00	35.70
2	*2437.00	99.9 PK			1.45 V	302	63.90	36.00
2	*2437.00	95.7 AV			1.45 V	302	59.60	35.70
3	2490.00	38.6 PK	74.00	-35.40	1.21 V	70	2.40	36.20
4	4874.00	48.6 PK	74.00	-25.40	1.35 V	104	5.40	43.20

REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 1, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2350.00	39.3 PK	74.00	-34.70	1.20 H	150	3.60	35.70
2	*2462.00	104.0 PK			1.20 H	150	67.90	36.10
2	*2462.00	99.1 AV			1.20 H	150	63.00	35.70
3	2489.00	54.8 PK	74.00	-19.20	1.13 H	32	18.60	36.20
3	2489.00	48.4 AV	54.00	-5.60	1.13 H	32	12.10	36.10
4	4924.00	53.9 PK	74.00	-20.10	1.14 H	305	10.60	43.30
4	4924.00	47.2 AV	54.00	-6.80	1.14 H	305	3.90	36.20

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)	Correction Factor (dB/m)
1	2350.00	38.6 PK	74.00	-35.40	1.25 V	275	2.90	35.70
2	*2462.00	104.3 PK			1.35 V	15	68.20	36.10
2	*2462.00	97.3 AV			1.35 V	15	61.10	35.70
3	2489.00	47.5 PK	74.00	-26.50	1.02 V	111	11.20	36.20
4	4924.00	50.7 PK	74.00	-23.30	1.11 V	302	7.40	43.30

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.8 TEST RESULTS (B)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 2, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.00	35.2 QP	43.50	-8.30	2.22 H	284	23.40	11.90
2	176.00	32.1 QP	43.50	-11.40	2.10 H	109	22.90	9.20
3	198.00	29.7 QP	43.50	-13.80	2.16 H	247	20.50	9.20
4	220.00	44.8 QP	46.00	-1.20	2.07 H	137	35.90	8.90
5	231.00	24.3 QP	46.00	-21.70	2.01 H	111	14.20	10.10
6	264.00	40.2 QP	46.00	-5.80	1.61 H	280	27.90	12.30
7	308.00	37.6 QP	46.00	-8.40	1.44 H	144	22.60	15.00
8	352.00	43.2 QP	46.00	-2.80	1.37 H	274	28.10	15.10
9	396.00	36.6 QP	46.00	-9.40	1.00 H	246	20.60	15.90
10	440.00	38.8 QP	46.00	-7.20	1.04 H	141	21.10	17.70

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)	Correction Factor (dB/m)
1	132.00	33.3 QP	43.50	-10.20	1.16 V	60	21.40	11.90
2	176.00	23.5 QP	43.50	-20.00	2.70 V	221	14.30	9.20
3	198.00	23.2 QP	43.50	-20.30	1.62 V	266	14.00	9.20
4	220.00	35.7 QP	46.00	-10.30	2.35 V	229	26.80	8.90
5	231.01	19.4 QP	46.00	-26.60	1.69 V	215	9.30	10.10
6	264.00	34.4 QP	46.00	-11.60	2.03 V	280	22.10	12.30
7	308.00	29.5 QP	46.00	-16.50	1.94 V	280	14.50	15.00
8	352.00	37.1 QP	46.00	-8.90	1.00 V	187	22.00	15.10
9	396.00	30.7 QP	46.00	-15.30	1.00 V	210	14.80	15.90
10	440.00	29.2 QP	46.00	-16.80	1.07 V	314	11.50	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 2, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2375.00	44.0 PK	74.00	-30.00	1.14 H	54	8.20	35.80
2	*2412.00	81.1 PK			1.25 H	254	45.20	35.90
2	*2412.00	75.5 AV			1.25 H	254	39.60	35.80
3	2490.00	46.2 PK	74.00	-27.80	1.30 H	100	10.00	36.20
4	4824.00	57.6 PK	74.00	-16.40	1.58 H	200	14.50	43.10
4	4824.00	51.0 AV	54.00	-3.00	1.58 H	200	7.90	35.90

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)	Correction Factor (dB/m)
1	2376.00	44.0 PK	74.00	-30.00	1.63 V	316	8.20	35.80
2	*2412.00	78.9 PK			1.74 V	259	43.00	35.90
2	*2412.00	70.0 AV			1.74 V	259	34.10	35.80
3	2490.00	43.5 PK	74.00	-30.50	1.47 V	301	7.20	36.20
4	4824.00	57.8 PK	74.00	-16.20	1.36 V	30	14.70	43.10
4	4824.00	50.1 AV	54.00	-3.90	1.36 V	30	7.00	35.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 2, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2376.00	44.8 PK	74.00	-29.20	1.13 H	89	9.00	35.80
2	*2437.00	86.2 PK			1.73 H	203	50.10	36.00
2	*2437.00	78.1 AV			1.73 H	203	42.00	35.80
3	2490.00	46.8 PK	74.00	-27.20	1.18 H	2	10.50	36.20
4	4874.00	53.4 PK	74.00	-20.60	1.29 H	65	10.10	43.20
4	4874.00	45.0 AV	54.00	-9.00	1.29 H	65	1.80	36.00

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)	Correction Factor (dB/m)
1	2376.00	46.0 PK	74.00	-28.00	1.62 V	57	10.20	35.80
2	*2437.00	85.7 PK			1.68 V	69	49.70	36.00
2	*2437.00	77.0 AV			1.68 V	69	41.00	35.80
3	2491.00	46.2 PK	74.00	-27.80	1.18 V	259	10.00	36.20
4	4874.00	53.7 PK	74.00	-20.30	1.34 V	205	10.50	43.20
4	4874.00	44.3 AV	54.00	-9.70	1.34 V	205	1.10	36.00

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 2, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2375.00	43.7 PK	74.00	-30.30	1.69 H	276	7.90	35.80
2	*2462.00	82.1 PK			1.09 H	209	46.00	36.10
2	*2462.00	76.2 AV			1.09 H	209	40.10	35.80
3	2491.00	44.8 PK	74.00	-29.20	1.48 H	350	8.50	36.20
4	4924.00	54.9 PK	74.00	-19.10	1.19 H	65	11.50	43.30
4	4924.00	48.2 AV	54.00	-5.80	1.19 H	65	4.90	36.10

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)	Correction Factor (dB/m)
1	2350.00	43.6 PK	74.00	-30.40	1.29 V	301	7.90	35.70
2	*2462.00	82.0 PK			1.08 V	255	45.90	36.10
2	*2462.00	74.2 AV			1.08 V	255	38.10	35.70
3	2491.00	45.9 PK	74.00	-28.10	1.09 V	86	9.70	36.20
4	4924.00	51.9 PK	74.00	-22.10	1.02 V	142	8.60	43.30
4	4924.00	45.7 AV	54.00	-8.30	1.02 V	142	2.40	36.10

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.9 TEST RESULTS (C)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 3, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.00	38.2 QP	43.50	-5.30	2.11 H	302	26.30	11.90
2	176.00	29.5 QP	43.50	-14.00	2.08 H	296	20.30	9.20
3	220.00	38.3 QP	46.00	-7.70	2.15 H	288	29.40	8.90
4	231.00	36.5 QP	46.00	-9.50	1.93 H	286	26.40	10.10
5	264.00	43.1 QP	46.00	-2.90	1.92 H	272	30.80	12.30
6	297.00	38.3 QP	46.00	-7.70	1.54 H	299	23.90	14.40
7	308.00	37.9 QP	46.00	-8.10	2.01 H	293	22.90	15.00
8	352.00	39.5 QP	46.00	-6.50	1.43 H	293	24.40	15.10
9	396.00	32.5 QP	46.00	-13.50	1.48 H	302	16.50	15.90
10	440.00	31.6 QP	46.00	-14.40	2.15 H	325	13.90	17.70

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)	Correction Factor (dB/m)
1	132.01	36.6 QP	43.50	-6.90	1.00 V	0	24.80	11.90
2	176.01	20.4 QP	43.50	-23.10	1.58 V	177	11.20	9.20
3	198.02	24.2 QP	43.50	-19.30	1.00 V	355	15.00	9.20
4	220.02	32.7 QP	46.00	-13.30	1.00 V	258	23.80	8.90
5	231.01	31.7 QP	46.00	-14.30	1.12 V	147	21.60	10.10
6	264.00	37.6 QP	46.00	-8.40	2.02 V	198	25.30	12.30
7	308.01	37.1 QP	46.00	-8.90	2.09 V	292	22.10	15.00
8	352.01	36.9 QP	46.00	-9.10	1.37 V	227	21.80	15.10
9	396.01	32.4 QP	46.00	-13.60	1.73 V	282	16.40	15.90
10	440.01	34.0 QP	46.00	-12.00	1.70 V	285	16.30	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 3, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2373.00	46.0 PK	74.00	-28.00	1.43 H	302	10.20	35.80
2	*2412.00	99.6 PK			1.45 H	251	63.60	35.90
2	*2412.00	91.7 AV			1.45 H	251	55.80	35.80
3	2491.00	46.8 PK	74.00	-27.20	1.39 H	203	10.60	36.20
4	4824.00	56.5 PK	74.00	-17.50	1.48 H	307	13.40	43.10
4	4824.00	50.7 AV	54.00	-3.30	1.48 H	307	7.60	35.90

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)	Correction Factor (dB/m)
1	2373.00	49.4 PK	74.00	-24.60	1.39 V	105	13.60	35.80
2	*2412.00	97.9 PK			1.59 V	302	62.00	35.90
2	*2412.00	89.6 AV			1.59 V	302	53.60	35.80
3	2490.00	45.5 PK	74.00	-28.50	1.15 V	209	9.20	36.20
4	4824.00	53.7 PK	74.00	-20.30	1.22 V	201	10.60	43.10
4	4824.00	46.4 AV	54.00	-7.60	1.22 V	201	3.20	35.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 3, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2373.00	47.0 PK	74.00	-27.00	1.25 H	263	11.20	35.80
2	*2437.00	97.0 PK			1.42 H	325	61.00	36.00
2	*2437.00	90.2 AV			1.42 H	325	54.20	35.80
3	2490.00	45.4 PK	74.00	-28.60	1.48 H	264	9.20	36.20
4	4874.00	56.5 PK	74.00	-17.50	1.11 H	189	13.20	43.20
4	4874.00	51.1 AV	54.00	-2.90	1.11 H	189	7.90	36.00

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)	Correction Factor (dB/m)
1	2373.00	46.5 PK	74.00	-27.50	1.52 V	309	10.70	35.80
2	*2437.00	95.3 PK			1.59 V	29	59.30	36.00
2	*2437.00	89.0 AV			1.59 V	29	53.00	35.80
3	2490.00	43.6 PK	74.00	-30.40	1.08 V	280	7.30	36.20
4	4874.00	53.4 PK	74.00	-20.60	1.74 V	192	10.20	43.20
4	4874.00	45.4 AV	54.00	-8.60	1.74 V	192	2.20	36.00

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 3, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2370.00	44.0 PK	74.00	-30.00	1.25 H	105	8.20	35.80
2	*2462.00	101.3 PK			1.69 H	288	65.20	36.10
2	*2462.00	94.8 AV			1.69 H	288	58.70	35.80
3	2489.00	55.9 PK	74.00	-18.10	1.41 H	354	19.70	36.20
3	2489.00	45.8 AV	54.00	-8.20	1.41 H	354	9.60	36.10
4	4924.00	56.3 PK	74.00	-17.70	1.50 H	189	13.00	43.30
4	4924.00	50.0 AV	54.00	-4.00	1.50 H	189	6.70	36.20

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)	Correction Factor (dB/m)
1	2370.00	46.1 PK	74.00	-27.90	1.12 V	260	10.30	35.80
2	*2462.00	99.4 PK			1.69 V	205	63.20	36.10
2	*2462.00	93.0 AV			1.69 V	205	56.90	35.80
3	2489.00	55.9 PK	74.00	-18.10	1.59 V	90	19.60	36.20
3	2489.00	43.5 AV	54.00	-10.50	1.59 V	90	7.20	36.10
4	4924.00	56.2 PK	74.00	-17.80	1.25 V	298	12.90	43.30
4	4924.00	47.4 AV	54.00	-6.60	1.25 V	298	4.10	36.20

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.10 TEST RESULTS (D)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 4, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	18 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.00	37.8 QP	43.50	-5.70	2.09 H	0	25.90	11.90
2	176.00	25.9 QP	43.50	-17.60	2.14 H	93	16.70	9.20
3	198.00	24.3 QP	43.50	-19.20	1.58 H	189	15.10	9.20
4	220.00	39.8 QP	46.00	-6.20	1.90 H	165	30.90	8.90
5	231.00	24.1 QP	46.00	-21.90	1.54 H	65	14.00	10.10
6	264.00	38.0 QP	46.00	-8.00	1.00 H	197	25.70	12.30
7	308.00	33.0 QP	46.00	-13.00	1.11 H	158	18.00	15.00
8	352.00	37.9 QP	46.00	-8.10	1.71 H	205	22.80	15.10
9	396.00	43.2 QP	46.00	-2.80	1.58 H	356	27.30	15.90
10	440.00	35.3 QP	46.00	-10.70	1.00 H	176	17.60	17.70

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)	Correction Factor (dB/m)
1	132.00	35.9 QP	43.50	-7.60	1.00 V	353	24.00	11.90
2	176.00	16.6 QP	43.50	-26.90	1.05 V	171	7.30	9.20
3	198.00	20.0 QP	43.50	-23.50	1.56 V	175	10.80	9.20
4	220.00	30.9 QP	46.00	-15.10	1.82 V	226	22.00	8.90
5	231.00	19.7 QP	46.00	-26.30	1.79 V	218	9.60	10.10
6	264.00	31.3 QP	46.00	-14.70	2.12 V	224	19.00	12.30
7	308.01	30.3 QP	46.00	-15.70	1.70 V	169	15.30	15.00
8	352.00	41.8 QP	46.00	-4.20	1.69 V	14	26.70	15.10
9	396.00	33.6 QP	46.00	-12.40	2.09 V	0	17.70	15.90
10	440.00	30.5 QP	46.00	-15.50	2.21 V	274	12.80	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 4, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2374.00	46.8 PK	74.00	-27.20	1.07 H	246	11.00	35.80
2	*2412.00	99.5 PK			1.36 H	266	63.50	35.90
2	*2412.00	91.6 AV			1.36 H	266	55.70	35.80
3	2490.00	46.3 PK	74.00	-27.70	1.60 H	164	10.00	36.20
4	4824.00	57.7 PK	74.00	-16.30	1.01 H	340	14.60	43.10
4	4824.00	50.8 AV	54.00	-3.20	1.01 H	340	7.60	35.90

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)	Correction Factor (dB/m)
1	2350.00	44.5 PK	74.00	-29.50	1.78 V	207	8.90	35.70
2	*2412.00	97.6 PK			1.28 V	210	61.60	35.90
2	*2412.00	91.6 AV			1.28 V	210	55.60	35.70
3	2490.00	45.2 PK	74.00	-28.80	1.40 V	146	9.00	36.20
4	4824.00	54.7 PK	74.00	-19.30	1.81 V	340	11.60	43.10
4	4824.00	46.7 AV	54.00	-7.30	1.81 V	340	3.50	35.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 4, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2376.00	45.4 PK	74.00	-28.60	1.11 H	142	9.60	35.80
2	*2437.00	100.3 PK			1.20 H	320	64.30	36.00
2	*2437.00	95.5 AV			1.20 H	320	59.50	35.80
3	2490.00	45.8 PK	74.00	-28.20	1.45 H	234	9.60	36.20
4	4874.00	55.4 PK	74.00	-18.60	1.12 H	251	12.20	43.20
4	4874.00	49.2 AV	54.00	-4.80	1.12 H	251	6.00	36.00

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)	Correction Factor (dB/m)
1	2376.00	44.8 PK	74.00	-29.20	1.00 V	292	9.00	35.80
2	*2437.00	99.6 PK			1.18 V	140	63.60	36.00
2	*2437.00	93.4 AV			1.18 V	140	57.40	35.80
3	2490.00	46.0 PK	74.00	-28.00	1.46 V	210	9.70	36.20
4	4874.00	53.9 PK	74.00	-20.10	1.25 V	302	10.70	43.20
4	4874.00	47.2 AV	54.00	-6.80	1.25 V	302	4.00	36.00

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 4, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2375.00	44.8 PK	74.00	-29.20	1.12 H	282	9.00	35.80
2	*2462.00	101.5 PK			1.16 H	258	65.40	36.10
2	*2462.00	94.1 AV			1.16 H	258	58.00	35.80
3	2490.00	56.8 PK	74.00	-17.20	1.49 H	337	20.60	36.20
3	2490.00	44.3 AV	54.00	-9.70	1.49 H	337	8.00	36.10
4	4924.00	54.7 PK	74.00	-19.30	1.14 H	60	11.40	43.30
4	4924.00	47.7 AV	54.00	-6.30	1.14 H	60	4.40	36.20

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)	Correction Factor (dB/m)
1	2375.00	43.7 PK	74.00	-30.30	1.16 V	258	7.90	35.80
2	*2462.00	100.1 PK			1.54 V	309	64.00	36.10
2	*2462.00	92.7 AV			1.54 V	309	56.50	35.80
3	2489.00	53.5 PK	74.00	-20.50	1.48 V	351	17.20	36.20
3	2489.00	41.4 AV	54.00	-12.60	1.48 V	351	5.10	36.10
4	4924.00	56.0 PK	74.00	-18.00	1.05 V	144	12.70	43.30
4	4924.00	47.8 AV	54.00	-6.20	1.05 V	144	4.50	36.20

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.11 TEST RESULTS (E)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 5, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.02	22.4 QP	43.50	-21.10	1.89 H	295	10.50	11.90
2	176.00	20.2 QP	43.50	-23.30	1.46 H	323	11.00	9.20
3	198.00	27.9 QP	43.50	-15.60	1.59 H	204	18.70	9.20
4	220.01	29.4 QP	46.00	-16.60	1.00 H	286	20.50	8.90
5	231.00	26.5 QP	46.00	-19.50	1.65 H	0	16.40	10.10
6	264.00	44.3 QP	46.00	-1.70	1.40 H	360	32.00	12.30
7	308.01	40.5 QP	46.00	-5.50	1.14 H	40	25.50	15.00
8	352.00	41.5 QP	46.00	-4.50	1.00 H	0	26.40	15.10
9	396.00	36.2 QP	46.00	-9.80	1.25 H	151	20.30	15.90
10	440.00	31.9 QP	46.00	-14.10	1.00 H	66	14.20	17.70

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)	Correction Factor (dB/m)
1	132.00	28.2 QP	43.50	-15.30	1.00 V	67	16.40	11.90
2	176.00	16.1 QP	43.50	-27.40	1.30 V	25	6.90	9.20
3	198.00	21.8 QP	43.50	-21.70	1.60 V	321	12.60	9.20
4	220.00	21.9 QP	46.00	-24.10	1.09 V	222	13.00	8.90
5	231.00	21.3 QP	46.00	-24.70	1.27 V	256	11.20	10.10
6	264.00	41.4 QP	46.00	-4.60	1.00 V	10	29.10	12.30
7	308.00	33.2 QP	46.00	-12.80	1.49 V	9	18.20	15.00
8	352.00	34.3 QP	46.00	-11.70	1.61 V	343	19.20	15.10
9	396.00	29.1 QP	46.00	-16.90	1.06 V	67	13.20	15.90
10	440.00	25.8 QP	46.00	-20.20	1.17 V	204	8.10	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 5, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2387.00	52.3 PK	74.00	-21.70	1.25 H	129	16.50	35.80
1	2387.00	39.3 AV	54.00	-14.70	1.25 H	129	3.50	35.80
2	*2412.00	97.2 PK			1.14 H	344	61.20	35.90
2	*2412.00	90.0 AV			1.14 H	344	54.10	35.90
3	2491.00	45.1 PK	74.00	-28.90	1.24 H	127	8.80	36.20
4	4824.00	61.4 PK	74.00	-12.60	1.41 H	243	18.20	43.10
4	4824.00	53.0 AV	54.00	-1.00	1.41 H	243	9.90	36.20

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)	Correction Factor (dB/m)
1	2374.00	46.8 PK	74.00	-27.20	1.01 V	184	11.00	35.80
2	*2412.00	103.9 PK			1.20 V	354	68.00	35.90
2	*2412.00	97.1 AV			1.20 V	354	61.20	35.80
3	2491.00	46.8 PK	74.00	-27.20	1.34 V	256	10.50	36.20
4	4824.00	59.0 PK	74.00	-15.00	1.34 V	79	15.90	43.10
4	4824.00	51.7 AV	54.00	-2.30	1.34 V	79	8.60	35.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 5, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2387.00	45.3 PK	74.00	-28.70	1.33 H	77	9.40	35.80
2	*2437.00	101.9 PK			1.42 H	326	65.90	36.00
2	*2437.00	91.7 AV			1.42 H	326	55.60	35.80
3	2491.00	48.1 PK	74.00	-25.90	1.12 H	248	11.80	36.20
4	4874.00	60.2 PK	74.00	-13.80	1.00 H	165	17.00	43.20
4	4874.00	52.0 AV	54.00	-2.00	1.00 H	165	8.80	36.00

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)	Correction Factor (dB/m)
1	2388.00	51.8 PK	74.00	-22.20	1.24 V	329	16.00	35.80
1	2388.00	40.4 AV	54.00	-13.60	1.24 V	329	4.50	35.80
2	*2437.00	105.8 PK			1.39 V	329	69.70	36.00
2	*2437.00	98.7 AV			1.39 V	329	62.70	36.00
3	2490.00	50.1 PK	74.00	-23.90	1.39 V	223	13.90	36.20
4	4874.00	62.0 PK	74.00	-12.00	1.20 V	119	18.80	43.20
4	4874.00	52.7 AV	54.00	-1.30	1.20 V	119	9.50	36.20

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 5, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2389.00	45.0 PK	74.00	-29.00	1.39 H	300	9.20	35.80
2	*2462.00	99.1 PK			1.20 H	49	63.00	36.10
2	*2462.00	92.8 AV			1.20 H	49	56.70	35.80
3	2491.00	55.2 PK	74.00	-18.80	1.36 H	57	19.00	36.20
3	2491.00	44.2 AV	54.00	-9.80	1.36 H	57	7.90	36.10
4	4924.00	60.2 PK	74.00	-13.80	1.42 H	237	16.90	43.30
4	4924.00	52.3 AV	54.00	-1.70	1.42 H	237	9.00	36.20

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)	Correction Factor (dB/m)
1	2387.00	48.6 PK	74.00	-25.40	1.11 V	258	12.80	35.80
2	*2462.00	108.6 PK			1.18 V	356	72.50	36.10
2	*2462.00	101.5 AV			1.18 V	356	65.40	35.80
3	2489.00	55.9 PK	74.00	-18.10	1.18 V	340	19.60	36.20
3	2489.00	45.5 AV	54.00	-8.50	1.18 V	340	9.20	36.10
4	4924.00	61.6 PK	74.00	-12.40	1.38 V	321	18.20	43.30
4	4924.00	52.4 AV	54.00	-1.60	1.38 V	321	9.10	36.20

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.12 TEST RESULTS (F)

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 6, Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	132.00	24.3 QP	43.50	-19.20	2.21 H	0	12.40	11.90
2	176.00	24.1 QP	43.50	-19.40	1.61 H	234	14.90	9.20
3	198.00	28.1 QP	43.50	-15.40	1.93 H	28	18.90	9.20
4	220.00	36.4 QP	46.00	-9.60	1.54 H	288	27.50	8.90
5	231.00	34.3 QP	46.00	-11.70	1.50 H	56	24.20	10.10
6	264.00	42.8 QP	46.00	-3.20	1.34 H	325	30.50	12.30
7	308.01	38.8 QP	46.00	-7.20	1.58 H	199	23.80	15.00
8	352.00	43.6 QP	46.00	-2.40	1.00 H	157	28.50	15.10
9	396.00	38.5 QP	46.00	-7.50	1.32 H	172	22.50	15.90
10	440.00	35.0 QP	46.00	-11.00	1.18 H	277	17.30	17.70

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)	Correction Factor (dB/m)
1	132.00	22.8 QP	43.50	-20.70	1.25 V	154	10.90	11.90
2	176.00	28.4 QP	43.50	-15.10	1.11 V	206	19.20	9.20
3	198.00	28.4 QP	43.50	-15.10	1.09 V	300	19.20	9.20
4	220.00	33.8 QP	46.00	-12.20	1.54 V	254	24.90	8.90
5	231.00	32.1 QP	46.00	-13.90	1.35 V	58	22.00	10.10
6	264.00	39.6 QP	46.00	-6.40	1.21 V	300	27.30	12.30
7	308.00	34.9 QP	46.00	-11.10	1.18 V	277	19.90	15.00
8	352.00	36.3 QP	46.00	-9.70	1.34 V	269	21.20	15.10
9	396.00	34.2 QP	46.00	-11.80	1.32 V	277	18.30	15.90
10	440.00	30.2 QP	46.00	-15.80	1.58 V	321	12.50	17.70

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 6, Channel 1	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2374.00	45.5 PK	74.00	-28.50	1.55 H	197	9.80	35.80
2	*2412.00	98.5 PK			1.01 H	317	62.60	35.90
2	*2412.00	90.7 AV			1.01 H	317	54.80	35.80
3	2491.00	43.8 PK	74.00	-30.20	1.25 H	300	7.50	36.20
4	4824.00	62.0 PK	74.00	-12.00	1.08 H	214	18.90	43.10
4	4824.00	52.8 AV	54.00	-1.20	1.08 H	214	9.70	35.90

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)	Correction Factor (dB/m)
1	2374.00	46.0 PK	74.00	-28.00	1.11 V	209	10.20	35.80
2	*2412.00	96.5 PK			1.30 V	285	60.60	35.90
2	*2412.00	88.5 AV			1.30 V	285	52.50	35.80
3	2490.00	43.8 PK	74.00	-30.20	1.32 V	301	7.50	36.20
4	4824.00	53.8 PK	74.00	-20.20	1.58 V	302	10.70	43.10
4	4824.00	47.7 AV	54.00	-6.30	1.58 V	302	4.60	35.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 6, Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2377.00	46.4 PK	74.00	-27.60	1.30 H	194	10.60	35.80
2	*2437.00	98.4 PK			1.55 H	300	62.40	36.00
2	*2437.00	92.9 AV			1.55 H	300	56.90	35.80
3	2491.00	48.5 PK	74.00	-25.50	1.54 H	65	12.20	36.20
4	4874.00	59.6 PK	74.00	-14.40	1.38 H	239	16.40	43.20
4	4874.00	52.5 AV	54.00	-1.50	1.38 H	239	9.30	36.00

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)	Correction Factor (dB/m)
1	2370.00	44.2 PK	74.00	-29.80	1.00 V	298	8.50	35.80
2	*2437.00	100.2 PK			1.64 V	264	64.20	36.00
2	*2437.00	92.9 AV			1.64 V	264	56.90	35.80
3	2490.00	47.1 PK	74.00	-26.90	1.33 V	98	10.80	36.20
4	4874.00	57.6 PK	74.00	-16.40	1.78 V	301	14.40	43.20
4	4874.00	48.8 AV	54.00	-5.20	1.78 V	301	5.60	36.00

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
MODE	Antenna 6, Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 50 % RH, 972 hPa	**TESTED BY**	Bruce Shiau

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)	Correction Factor (dB/m)
1	2370.00	43.3 PK	74.00	-30.70	1.00 H	54	7.50	35.80
2	*2462.00	104.4 PK			1.47 H	331	68.20	36.10
2	*2462.00	96.0 AV			1.47 H	331	59.90	35.80
3	2491.00	54.9 PK	74.00	-19.10	1.04 H	251	18.70	36.20
3	2491.00	43.1 AV	54.00	-10.90	1.04 H	251	6.90	36.10
4	4924.00	58.5 PK	74.00	-15.50	1.55 H	302	15.10	43.30
4	4924.00	52.9 AV	54.00	-1.10	1.55 H	302	9.60	36.20

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)	Correction Factor (dB/m)
1	2380.00	45.6 PK	74.00	-28.40	1.19 V	133	9.80	35.80
2	*2462.00	99.9 PK			1.66 V	326	63.80	36.10
2	*2462.00	92.1 AV			1.66 V	326	56.00	35.80
3	2491.00	54.1 PK	74.00	-19.90	1.46 V	268	17.90	36.20
3	2491.00	39.8 AV	54.00	-14.20	1.46 V	268	3.60	36.10
4	4924.00	55.1 PK	74.00	-18.90	1.37 V	203	11.80	43.30
4	4924.00	48.2 AV	54.00	-5.80	1.37 V	203	4.90	36.20

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

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
R&S SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP

4.3.6 EUT OPERATING CONDITIONS

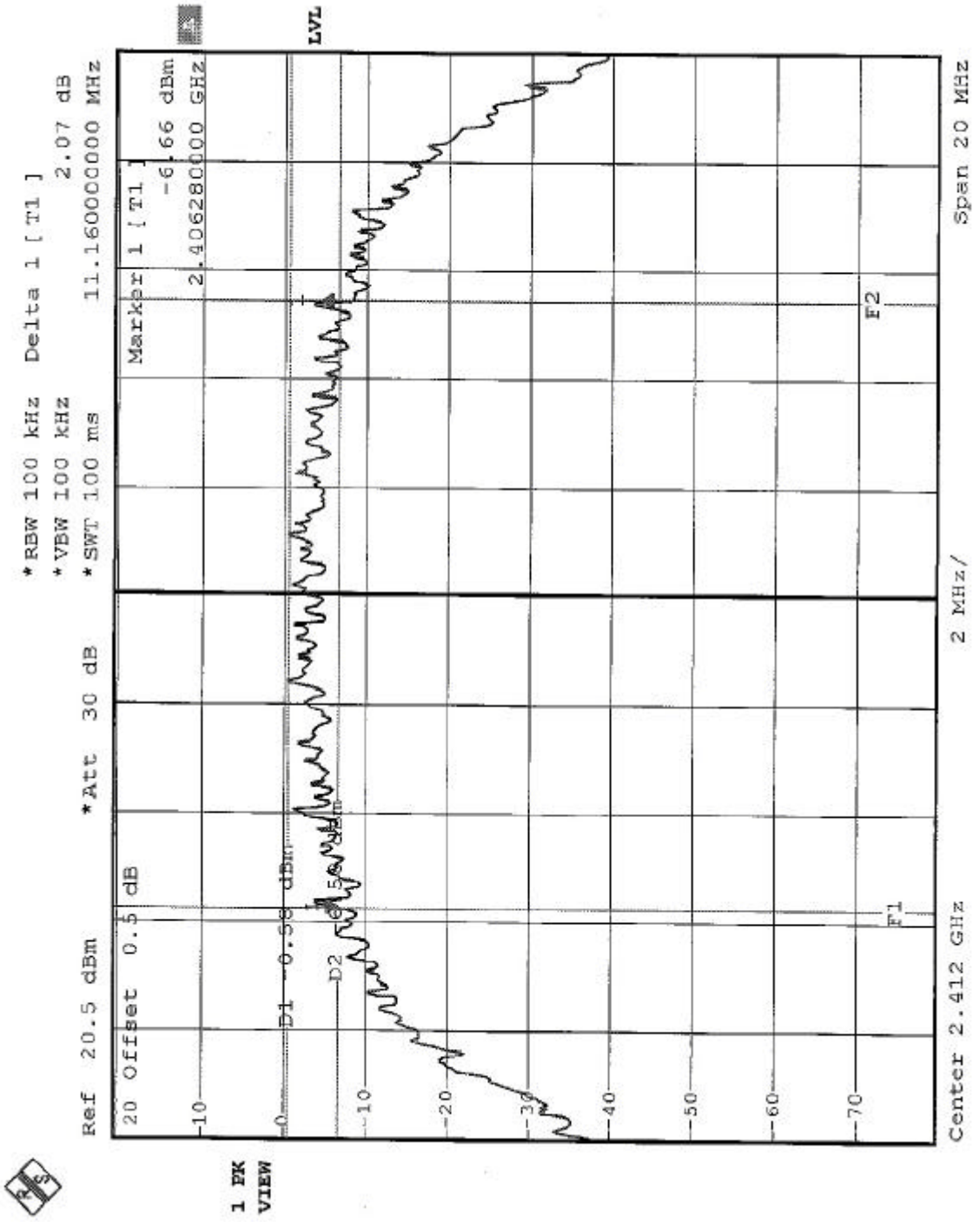
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

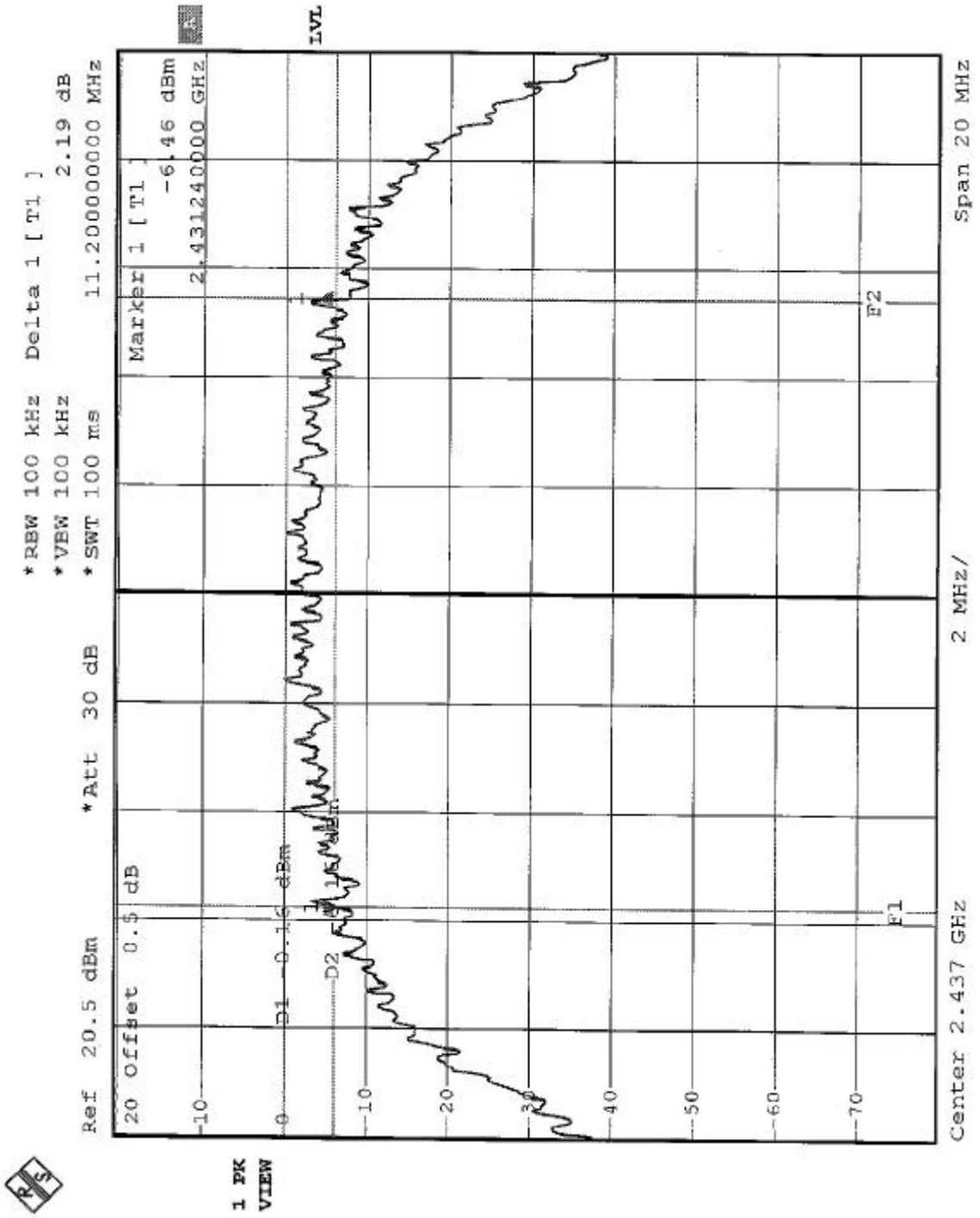
EUT	802.11b Wireless LAN MiniPCI Card	MODEL	T60H656
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	22 deg. C, 60 %RH, 972 hPa
TESTED BY	Bruce Shiau		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.16	0.5	PASS
6	2437	11.20	0.5	PASS
11	2462	11.16	0.5	PASS

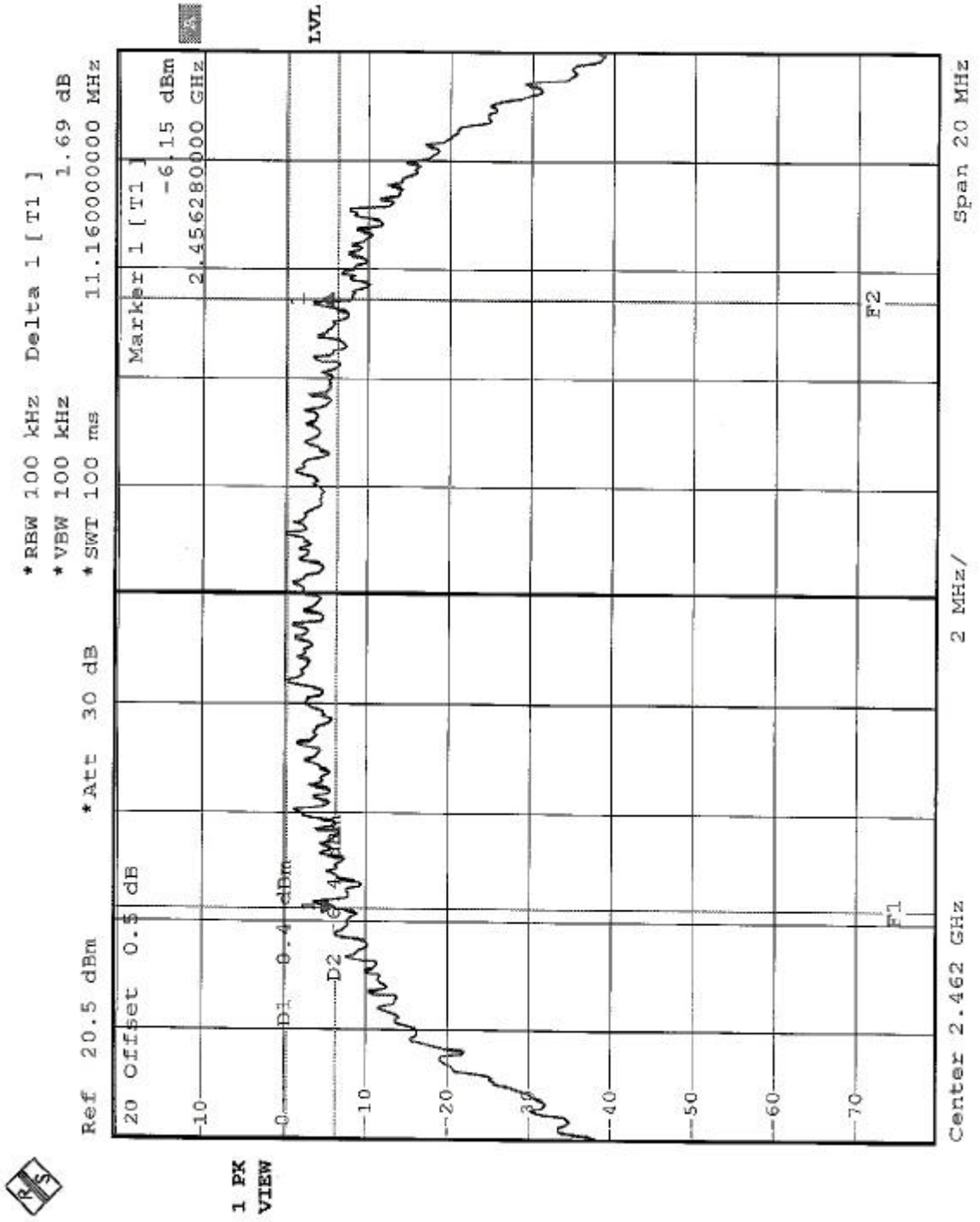
CH1


*RBW 100 kHz
Delta 1 [T1]
2.07 dB
*VBW 100 kHz
11.160000000 MHz
*SWT 100 ms
Marker 1 [T1]
-6.66 dBm
2.406280000 GHz
Ref 20.5 dBm
Offset 0.5 dB
*Att 30 dB
LVL
1 PK
VIEW
D1 -0.58 dBm
D2
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz

CH6


RBW 100 kHz
VBW 100 kHz
SWT 100 ms
Delta 1 [T1]
2.19 dB
11.20000000 MHz
Marker 1 [T1]
-6.46 dBm
2.43124000 GHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
1 PK
VIEW
Center 2.437 GHz
2 MHz/
Span 20 MHz
F1
F2
D1 -0.16 dBm
D2

CH11


RBW 100 kHz
VBW 100 kHz
SWT 100 ms
Delta 1 [T1]
1.69 dB
11.160000000 MHz
Marker 1 [T1]
-6.15 dBm
2.456280000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
Att 30 dB
D1 0.4 dBm
D2
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
1 PK
VIEW

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
SINGLE CHANNEL POWER METER	NRVS	100026	Feb. 21, 2003
PEAK POWER SENSOR	NRV-Z32	100013	Feb. 21, 2003

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.

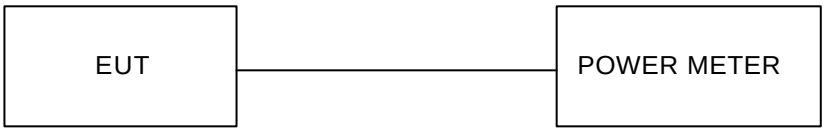
4.4.3 TEST PROCEDURES

The transmitter output was connected to the power meter.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	25 deg. C, 60 %RH, 972 hPa
TESTED BY	Bruce Shiau		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	10.92	30	PASS
6	2437	11.50	30	PASS
11	2462	11.30	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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.

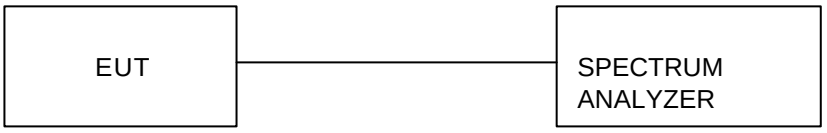
4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded.
The sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

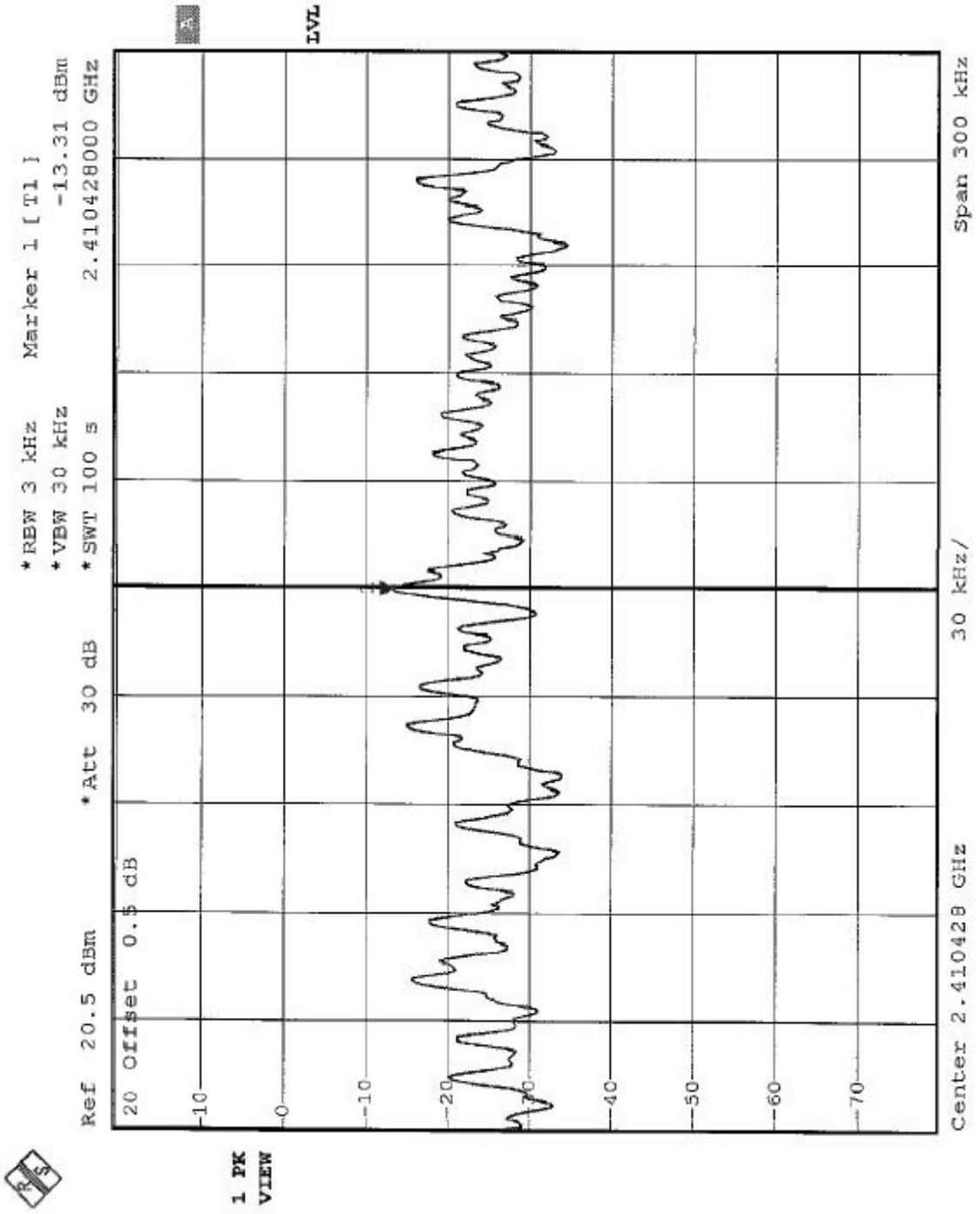
Same as 4.3.6.

4.5.7 TEST RESULTS

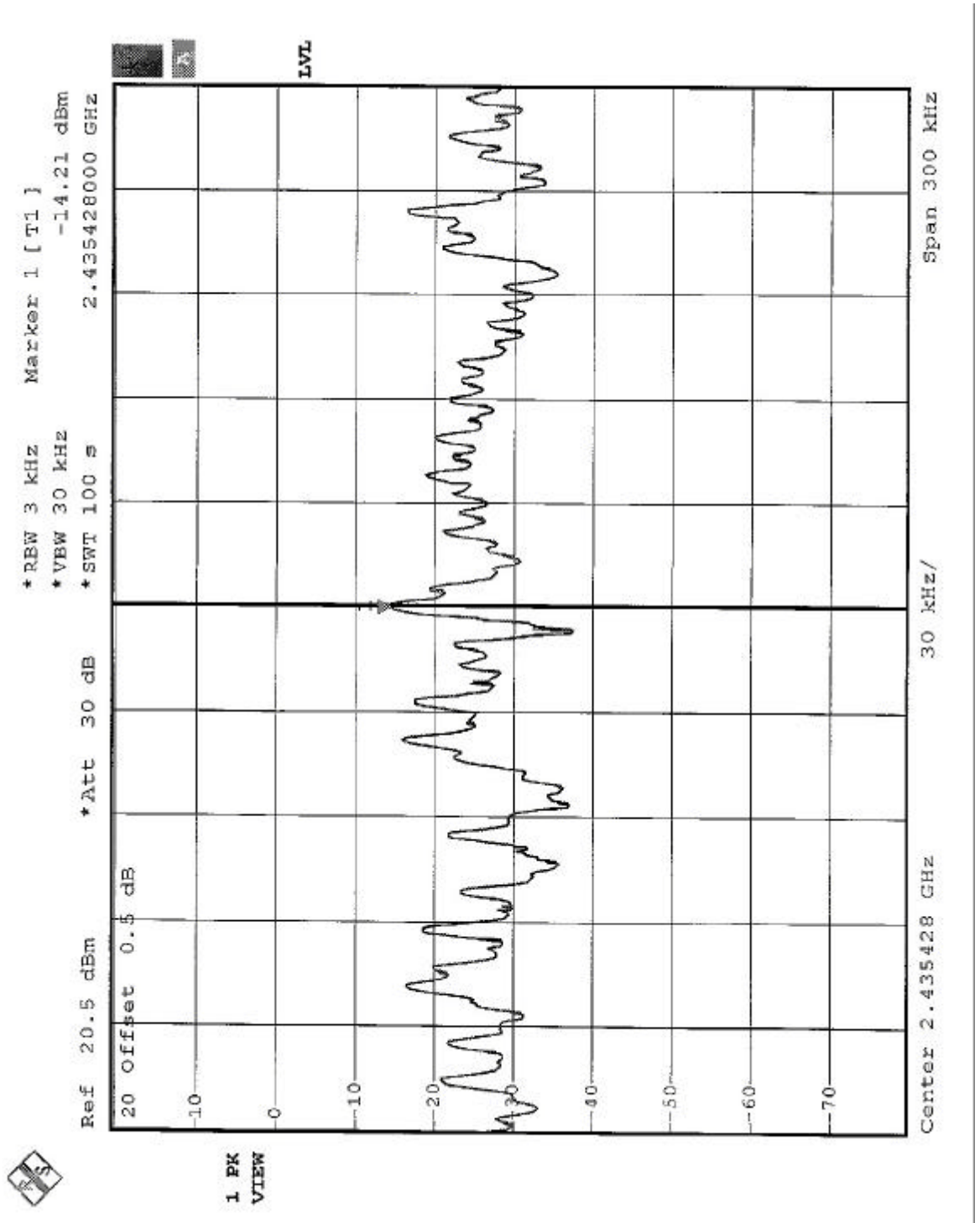
EUT	802.11b Wireless LAN MiniPCI Card	**MODEL**	T60H656
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	22 deg. C, 60 %RH, 972 hPa
TESTED BY	Bruce Shiau		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.31	8	PASS
6	2437	-14.21	8	PASS
11	2462	-13.01	8	PASS

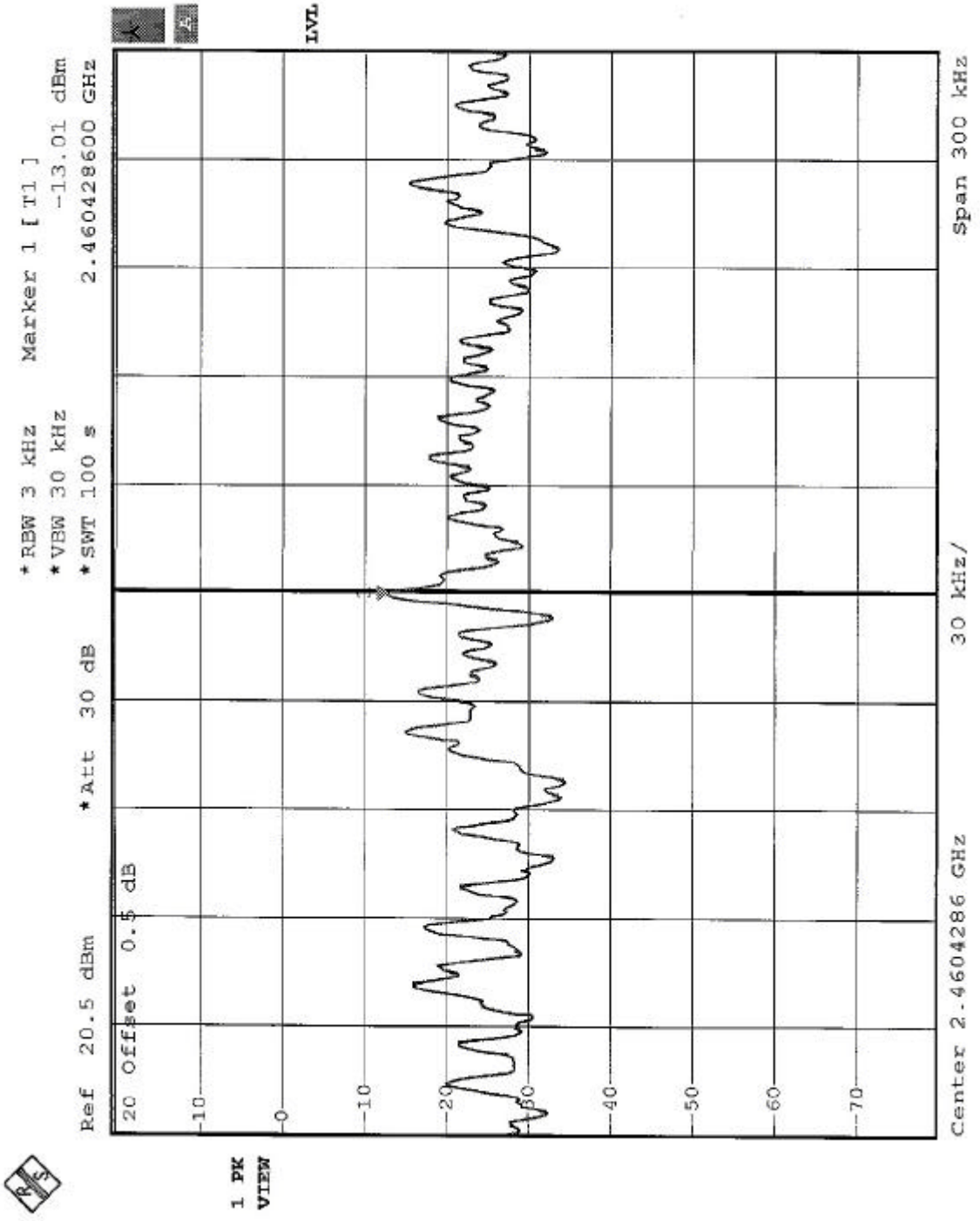
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 100 s
Marker 1 [T1]
-13.31 dBm
2.410428000 GHz
LVL
Center 2.410428 GHz
30 kHz/
Span 300 kHz
1 PK
VIEW

CH6


LVL
Marker 1 [T1]
-14.21 dBm
2.435428000 GHz
*RBW 3 kHz
*VBW 30 kHz
*SWT 100 s
*Att 30 dB
Ref 20.5 dBm
20 Offset 0.5 dB
Span 300 kHz
30 kHz/
Center 2.435428 GHz
1 PK
VIEW

CH11


Marker 1 [T1]
-13.01 dBm
2.460428600 GHz
*RBW 3 kHz
*VBW 30 kHz
*SWT 100 s
*Att 30 dB
Ref 20.5 dBm
Offset 0.5 dB
1 PK
VIEW
Center 2.4604286 GHz
30 kHz/
Span 300 kHz

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100KHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 kHz bandwidth from band edge. The band edges was measured and recorded.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

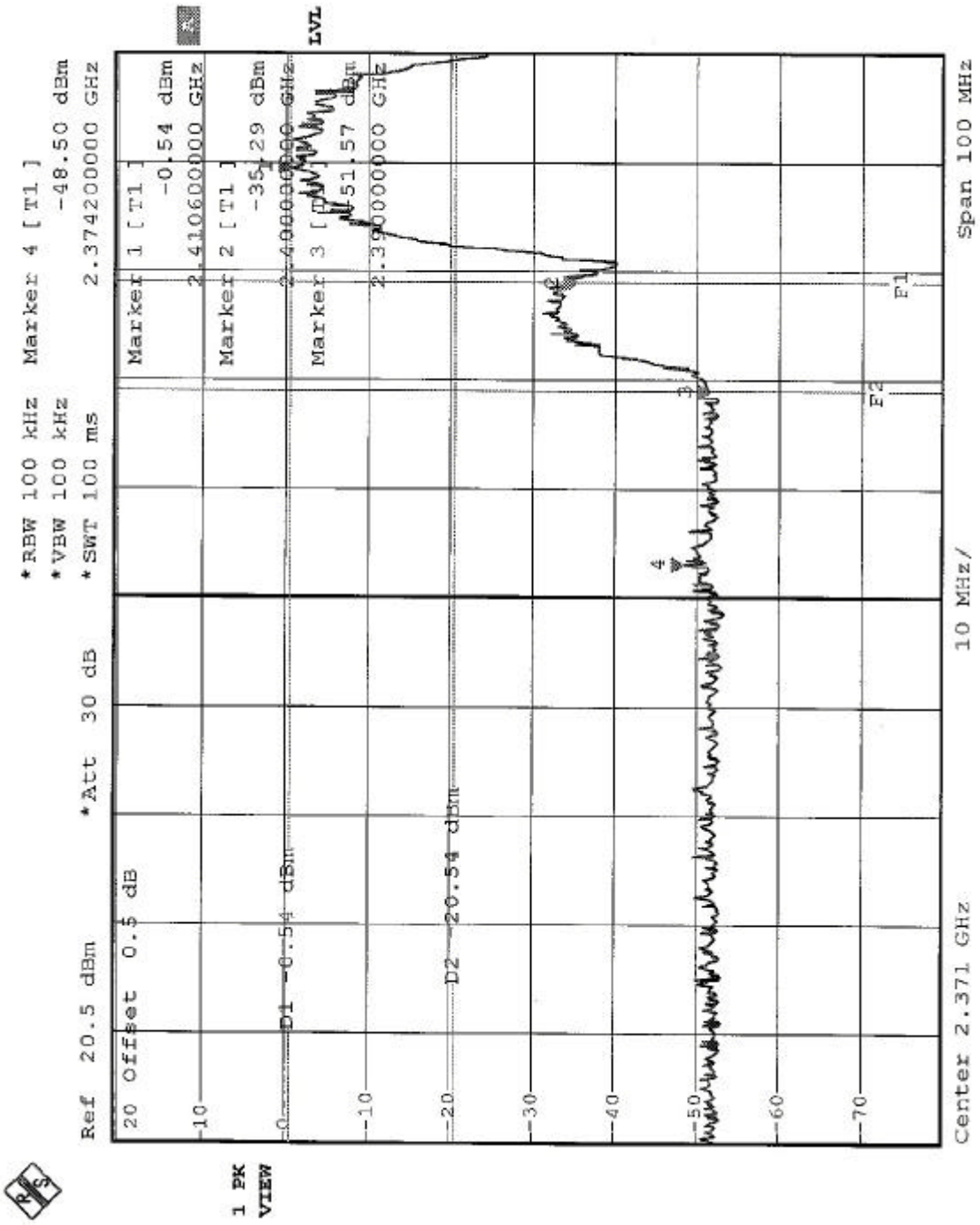
4.6.5 EUT OPERATING CONDITION

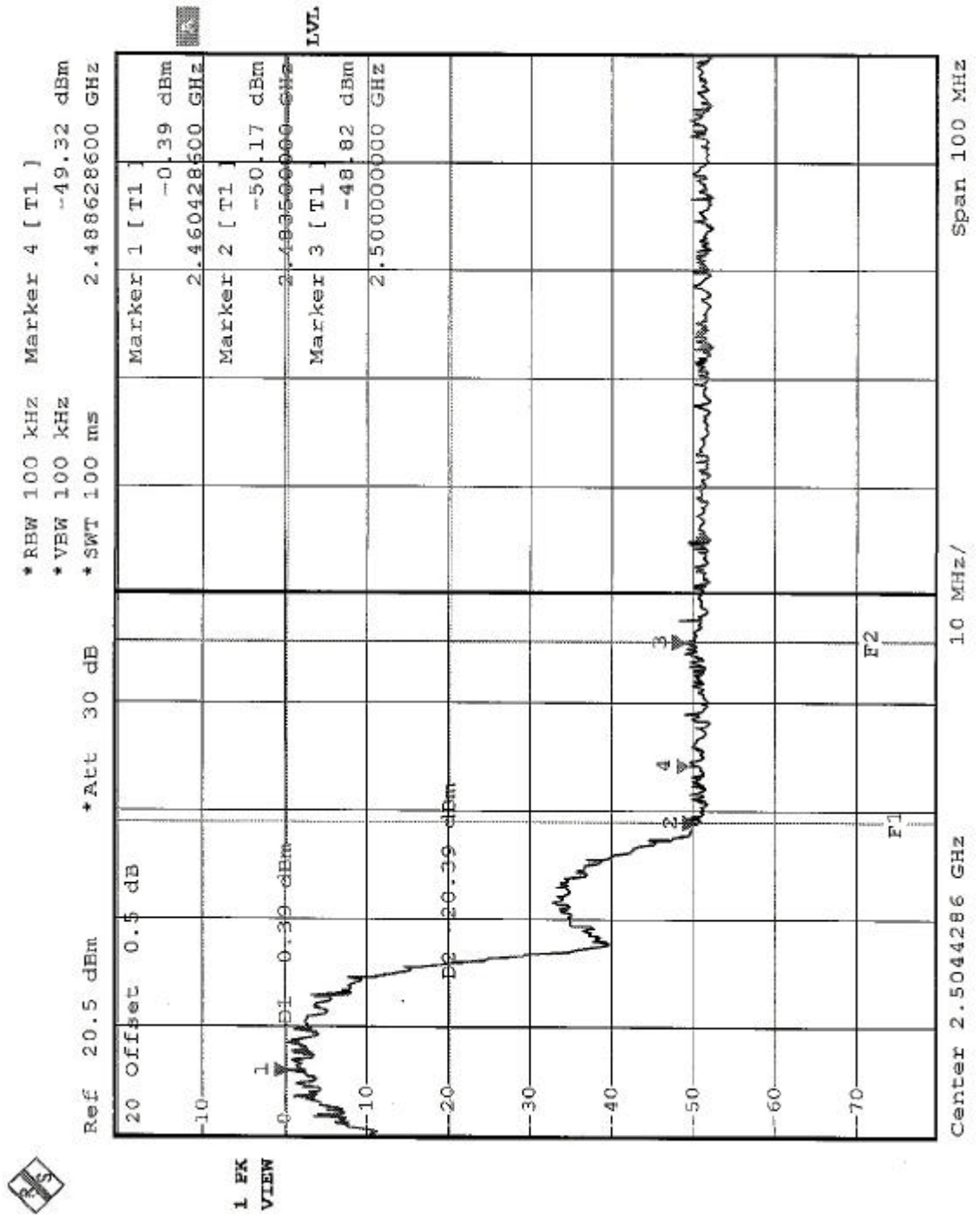
Same as Item 4.3.6.

4.6.6 TEST RESULTS

The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

NOTE: The band edge emission plot on the following 2 pages shows 49.04dB / 49.71dB delta between carrier maximum power and local maximum emission in restrict band (2.3742GHz / 2.4886GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.10 (Page 47) is 101.50dBuV/m, so the maximum field strength in restrict band is 101.5-49.71=51.79dBuV/m which is under 54 dBuV/m limit.


RBW 100 kHz
VBW 100 kHz
SWT 100 ms
Att 30 dB
Ref 20.5 dBm
Offset 0.5 dB
Marker 4 [T1]
-48.50 dBm
2.37420000 GHz
Marker 1 [T1]
-0.54 dBm
2.41060000 GHz
Marker 2 [T1]
-35.29 dBm
2.40000000 GHz
Marker 3 [T1]
-51.57 dBm
2.39000000 GHz
D1 -0.54 dBm
D2 -20.54 dBm
1 PK
VIEW
Center 2.371 GHz
10 MHz/
Span 100 MHz


*RBW 100 kHz
*VBW 100 kHz
*SWT 100 ms
Marker 4 [T1]
-49.32 dBm
2.488628600 GHz
Ref 20.5 dBm
Offset 0.5 dB
*Att 30 dB
Marker 1 [T1]
-0.39 dBm
2.460428500 GHz
Marker 2 [T1]
-50.17 dBm
2.483500000 GHz
Marker 3 [T1]
-48.82 dBm
2.500000000 GHz
D1 -0.39 dBm
D2 -20.39 dBm
F1
F2
1 PK
VIEW
Center 2.5044286 GHz
10 MHz/
Span 100 MHz

4.7 ANTENNA REQUIREMENT

4.7.1 STANDARD APPLICABLE

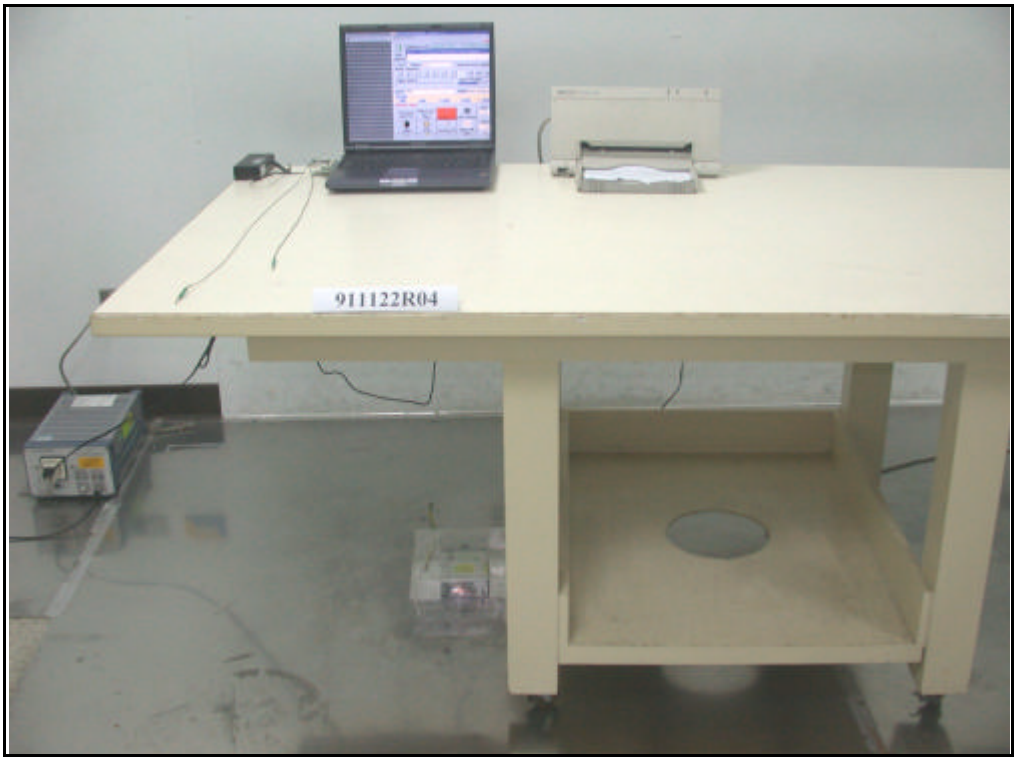
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

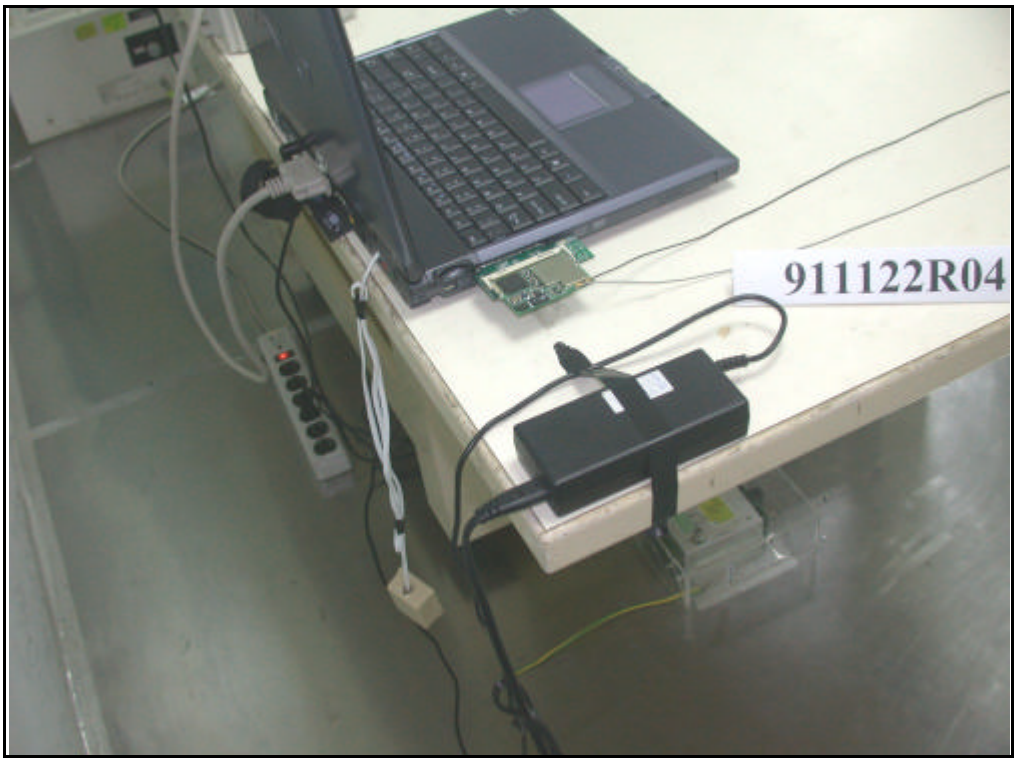
4.7.2 ANTENNA CONNECTED CONSTRUCTION

The maximum Gain antenna used in this product is printed inverted F antenna, and the antenna connector type for the EUT is UFL. And the maximum Gain of these antennas is 3dBi.

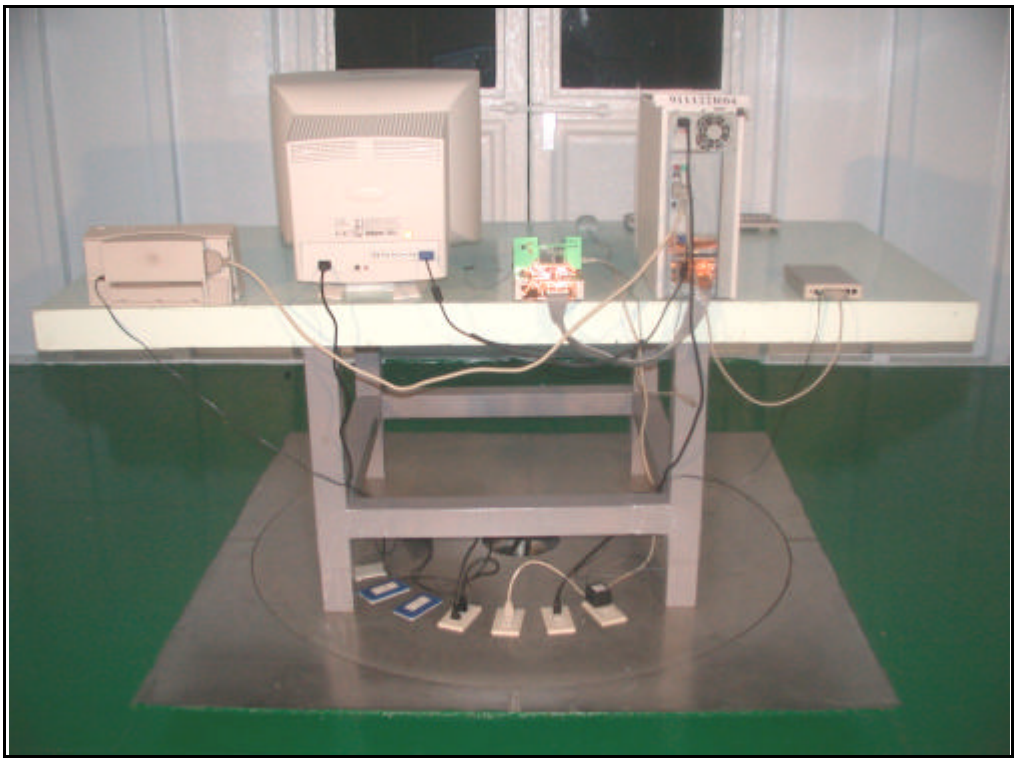
5 PHOTOGRAPHS OF THE TEST CONFIGURATION

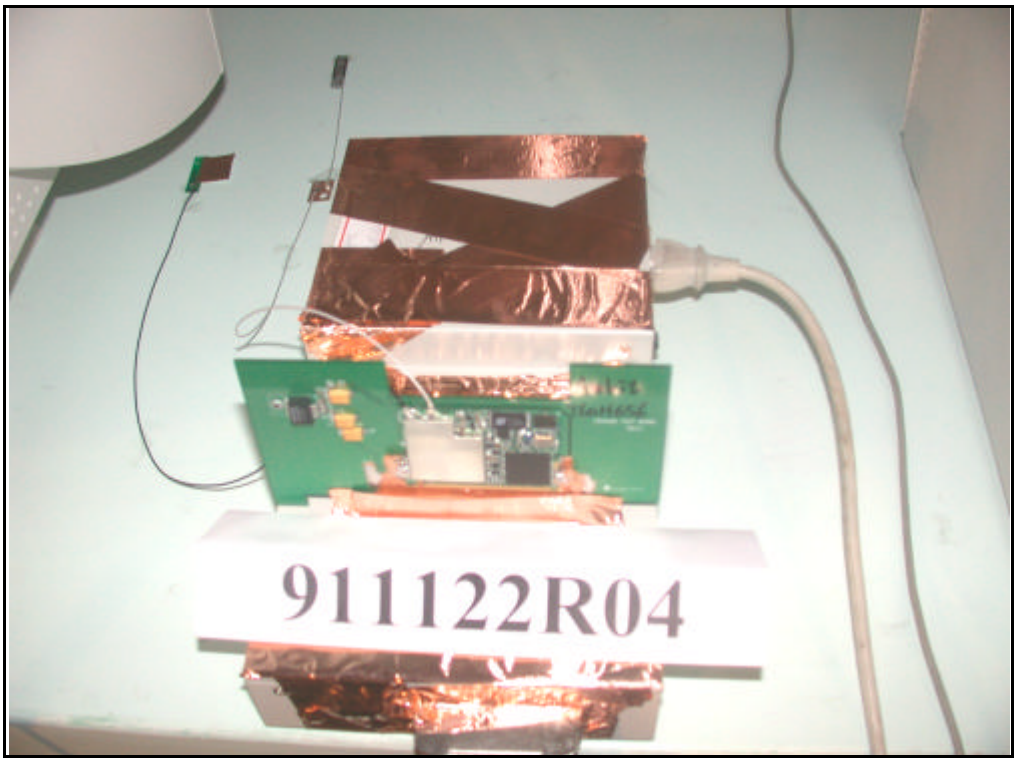
CONDUCTED EMISSION TEST

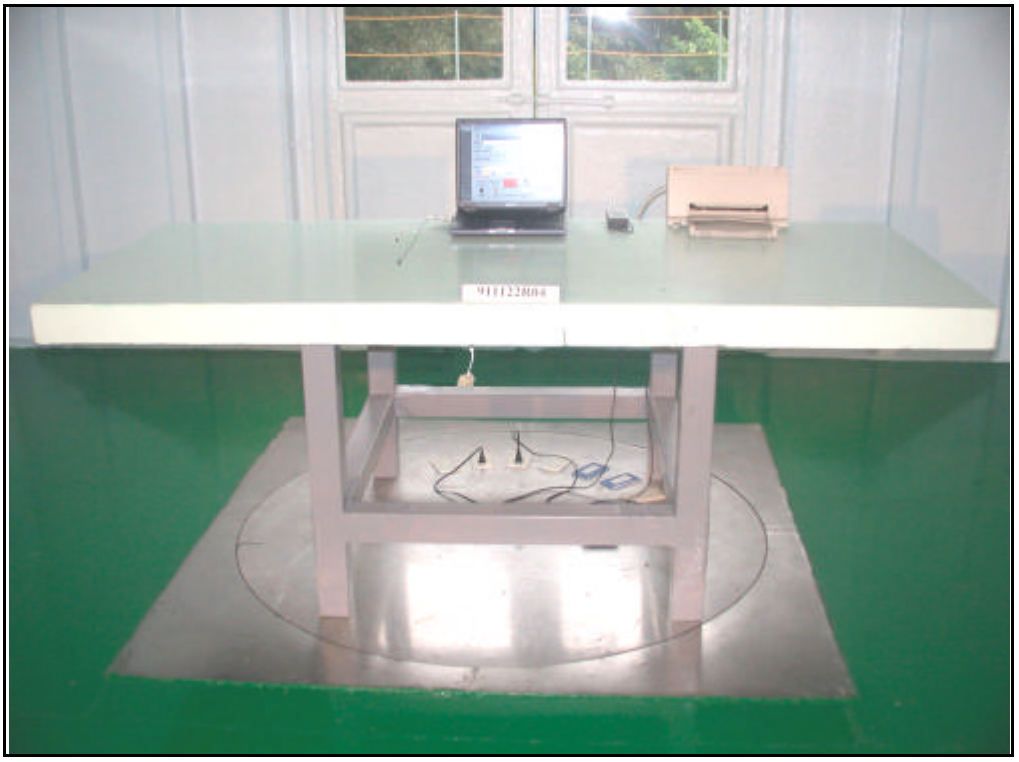

911122R04


911122R04

RADIATED EMISSION TEST




911122R04




911122R04

6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP
Germany	TUV Rheinland
Japan	VCCI
New Zealand	MoC
Norway	NEMKO
R.O.C.	BSMI, DGT, CNLA

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml.

If you have any comments, please feel free to contact us at the following:

Lin Kou EMC Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC Lab:
Tel: 886-35-935343
Fax: 886-35-935342

Lin Kou Safety Lab:
Tel: 886-2-26093195
Fax: 886-2-26093184

Lin Kou RF&Telecom Lab
Tel: 886-3-3270910
Fax: 886-3-3270892

Email: service@mail.adt.com.tw
Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.