



FCC TEST REPORT (15.407)

REPORT NO.: RF940203L01
MODEL NO.: WLL4070
RECEIVED: Feb. 03, 2005
TESTED: Feb. 15 ~ Mar. 02, 2005
ISSUED: Mar. 07, 2005

APPLICANT: ASKEY COMPUTER CORP.

ADDRESS: 10F, NO.119, CHIENKANG RD., CHUNG-HO, TAIPEI TAIWAN R.O.C.

ISSUED BY: Advance Data Technology Corporation

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TEST LOCATION: No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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0528
ILAC MRA



No. 2177-01



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1. CERTIFICATION

PRODUCT: Wireless Mini PCI Card
BRAND NAME: Askey
MODEL NO.: WLL4070
TEST SAMPLE: ENGINEERING SAMPLE
TESTED: Feb. 15 ~ Mar. 02, 2005
APPLICANT: ASKEY COMPUTER CORP.
STANDARDS: FCC Part 15, Subpart E (Section 15.407)
ANSI C63.4-2003

The above equipment has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Candice Chen , **DATE:** Mar. 07, 2005
(Candice Chen)

TECHNICAL
ACCEPTANCE : Gary Chang , **DATE:** Mar. 07, 2005
Responsible for RF (Gary Chang)

APPROVED BY : Cody Chang , **DATE:** Mar. 07, 2005
(Cody Chang,
Deputy Manager)



2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart E (Section 15.407)			
Standard Section	Test Type	Result	Remark
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -13.43dB at 0.170MHz
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -1.53dB at 15540.00MHz
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.65 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 dB



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Wireless Mini PCI Card
MODEL NO.	WLL4070
POWER SUPPLY	3.3Vdc from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps (Turbo mode: up to 108Mbps *see Note 2) 802.11a: 54/48/36/24/18/12/9/6Mbps (Turbo mode: up to 108Mbps *see Note 2)
FREQUENCY RANGE	802.11b & 802.11g: 2412 ~ 2462MHz 802.11a: 5.15 ~ 5.35GHz and 5.725 ~ 5.850GHz
NUMBER OF CHANNEL	802.11b & 802.11g: 11 for Normal mode / 1 for Turbo mode 802.11a: 13 for Normal mode / 5 for Turbo mode
CHANNEL SPACING	802.11b & 802.11g: 5MHz 802.11a: 20MHz for Normal mode / 40MHz for Turbo mode
OUTPUT POWER	802.11b: 50.699mW 802.11g: 51.286mW 802.11a: 35.892mW
DATA CABLE	NA
ANTENNA TYPE	Please refer to Note 1 below
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

- The EUT have seventeen combinations of antenna type. Please refer to following table.

No.	Brand	Antenna type	P/N	11g Gain (dBi)	11a Gain (dBi)
1	NISSEI Electric Co., Ltd	Inverted F	CP115407-01	0.19dBi	3.03dBi
2	NISSEI Electric Co., Ltd	Inverted F	CP115404-01	-1.19dBi	0.42dBi
3	NISSEI Electric Co., Ltd	Inverted F	CP115410-01	0.39dBi	3.50dBi
4	NISSEI Electric Co., Ltd	Inverted F	CP115401-01	-0.97dBi	2.93dBi
5	NISSEI Electric Co., Ltd	Inverted F	CP115399-01	1.05dBi	0.70dBi
6	NISSEI Electric Co., Ltd	Inverted F	CP115412-01	1.06dBi	-1.18dBi
7	Yokowo Co., Ltd	Monopole	YCE-5008	0.14dBi	0.89dBi



8	Yokowo Co., Ltd	Monopole	YCE-5008(008L00196)	2.57dBi	2.47dBi
9	NEC TOKIN Corp.	Monopole	DA-120D-2454M-FJ01	-0.80dBi	-1.70dBi
10	Yokowo Co., Ltd	Monopole	YCE-5008(008L00197)	2.48dBi	0.20dBi
11	Yokowo Co., Ltd	Monopole	YCE-5008	2.85dBi	1.45dBi
12	Yokowo Co., Ltd	Monopole	YCE-5008(008L00197)	0.69dBi	4.91dBi
13	Yokowo Co., Ltd	Monopole	YCE-5008(008L00197)	1.03dBi	2.39dBi
14	Yokowo Co., Ltd	Monopole	YCE-5008	1.49dBi	2.09dBi
15	Yokowo Co., Ltd	Monopole	YCE-5008(008L00197)	2.31dBi	2.95dBi
16	NISSEI Electric Co., Ltd	Inverted F	CP115391-01	-0.14dBi	1.78dBi
17	Yokowo Co., Ltd	Monopole	YCE-5008	0.44dBi	3.38dBi

*Item 3, 6, 9, 11 and 12 were the worst case and chosen for final test. We have tested for each type of antenna and chosen the highest gain of each type for final test and recorded.

- The EUT operates in both the 5GHz and 2.4GHz Bands and compatibility with 802.11a and 802.11b, 802.11g technology.
- This EUT is capable of providing data rates of up to 108Mbps in Turbo Mode depending upon reception quality.
- The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 5150 ~ 5250MHz, 5250MHz ~ 5350MHz bands:

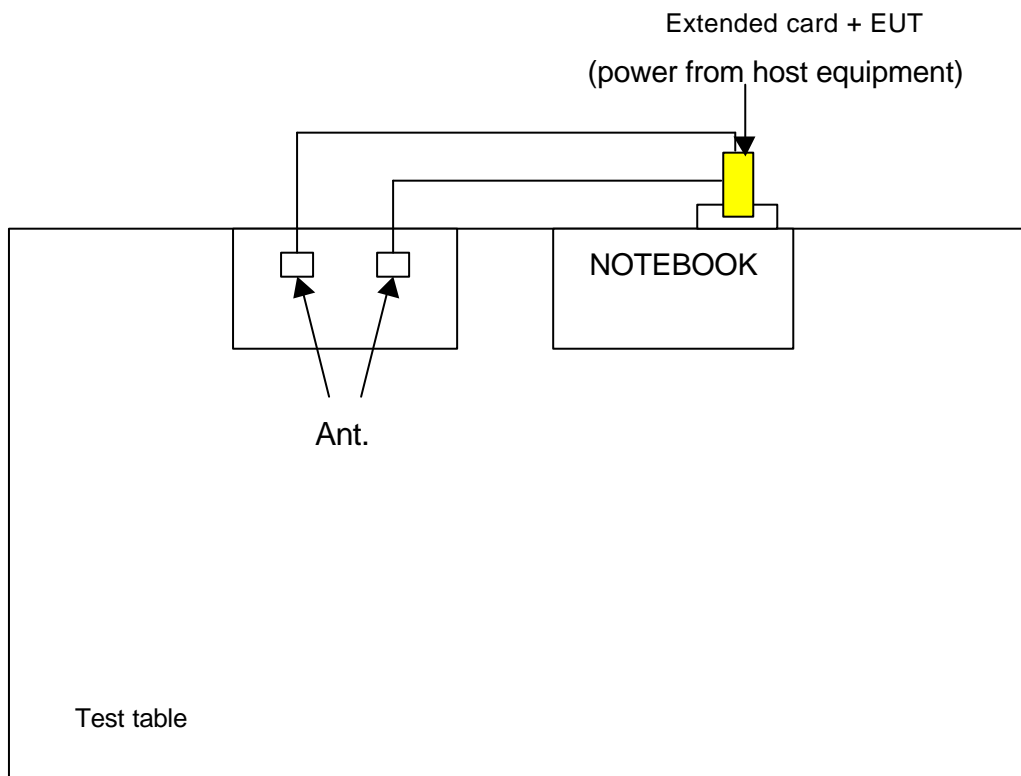
Eight channels are provided to this EUT for normal mode.

Channel	Frequency
1	5180 MHz
2	5200 MHz
3	5220 MHz
4	5240 MHz
5	5260 MHz
6	5280 MHz
7	5300 MHz
8	5320 MHz

Three channels are provided to this EUT for turbo mode.

Channel	Frequency
1	5210 MHz
2	5250 MHz
3	5290 MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST





3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
A	Note 1	X	X	Note 2	antenna 3 (see note 1 of section 3.1)
B	Note 1	X	X	Note 2	antenna 6 (see note 1 of section 3.1)
C	Note 1	X	X	Note 2	antenna 9 (see note 1 of section 3.1)
D	Note 1	X	X	Note 2	antenna 11 (see note 1 of section 3.1)
E	Note 1	X	X	Note 2	antenna 12 (see note 1 of section 3.1)

Where PLC: Power Line Conducted Emission RE<1G RE: Radiated Emission below 1GHz
 RE≥1G: Radiated Emission above 1GHz APCM: Antenna Port Conducted Measurement
 Note 1: No effect on Conducted RF measurement.
 Note 2: Conducted RF measurement is independent of antenna.

Power Line Conducted Emission Test:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
E	802.11a	1 to 8	5	OFDM	BPSK	6

Radiated Emission Test (Below 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B, C, D, E	802.11a	1 to 8	5	OFDM	BPSK	6

Radiated Emission Test (Above 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A, B, C, D, E	802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6
A, B, C, D, E	802.11a Turbo	1 to 3	1, 2, 3	OFDM	BPSK	12



Bandedge Measurement:

- ? Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	1 to 8	1, 8	OFDM	BPSK	6
802.11a Turbo	1 to 3	1, 3	OFDM	BPSK	12

Antenna Port Conducted Measurement:

- ? Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	1 to 8	1, 4, 5, 8	OFDM	BPSK	6
802.11a Turbo	1 to 3	1, 2, 3	OFDM	BPSK	12



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless Mini PCI Card. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

ANSI C63.4-2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	PP01L	15453736048	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

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



4. TEST TYPES AND RESULTS (5150 ~ 5350MHz Band)

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 06, 2005
RF signal cable Woken	5D-FB	Cable-HyC02-01	Jan. 09, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 20, 2006
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 20, 2006
Software ADT	ADT_Cond_V3	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 HwaYa Shielded Room 3.
 3. The VCCI Site Registration No. is C-2047.



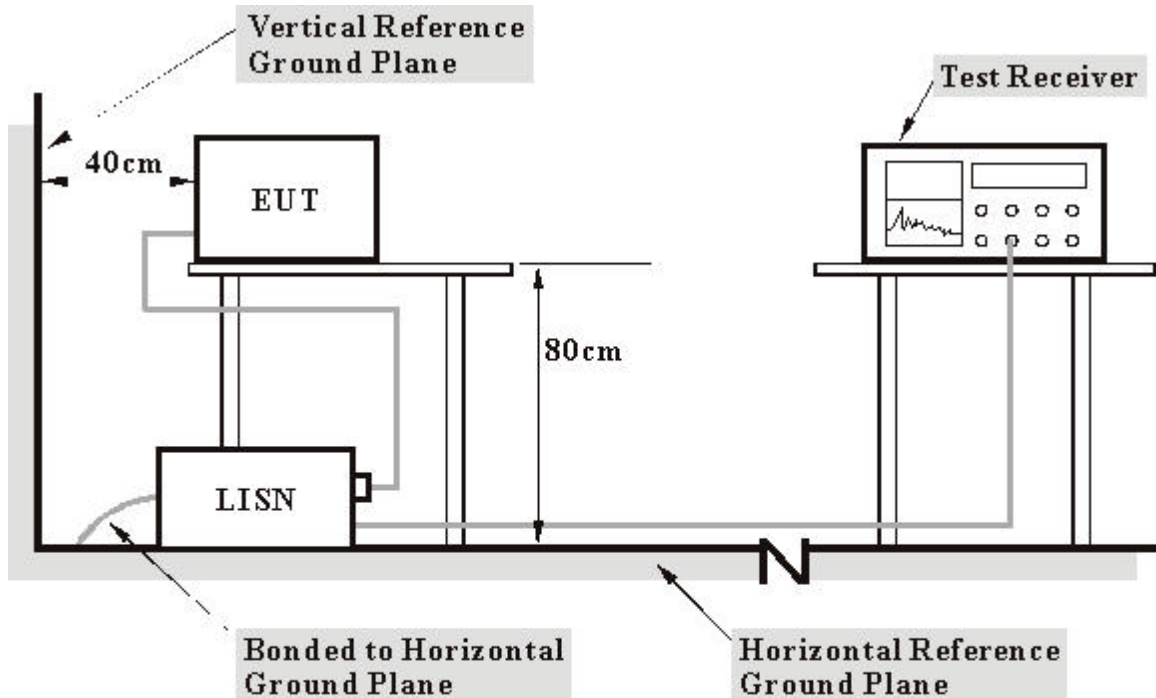
4.1.3 TEST PROCEDURES

- 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 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 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.

4.1.6 EUT OPERATING CONDITIONS

- a. Connected the EUT into notebook system via mini PCI extended card placed on a testing table.
- b. The EUT ran a test program (provided by manufacturer) to enable all functions under transmission/receiving condition continuously at specific channel frequency.
- c. The notebook system sent "H" messages to its screen.



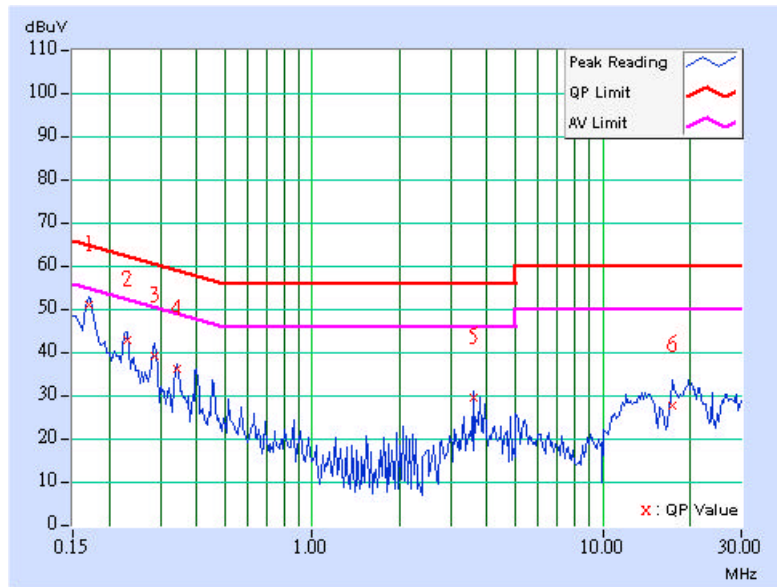
4.1.7 TEST RESULTS

Conducted Worst-Case Data (Antenna 12)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 991hPa	TESTED BY	Gary Chang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.170	0.10	50.66	-	50.76	-	64.98
2	0.232	0.10	42.27	-	42.37	-	62.38	52.38	-20.00	-
3	0.287	0.11	38.77	-	38.88	-	60.62	50.62	-21.74	-
4	0.341	0.11	35.56	-	35.67	-	59.17	49.17	-23.50	-
5	3.602	0.20	28.91	-	29.11	-	56.00	46.00	-26.89	-
6	17.371	0.60	27.00	-	27.60	-	60.00	50.00	-32.40	-

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

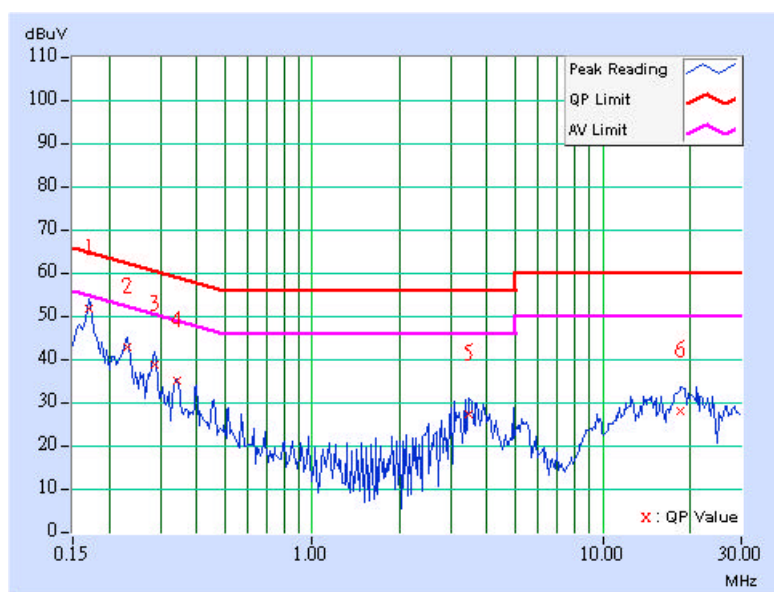




EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	6dB BANDWIDTH	9 kHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 991hPa	TESTED BY	Gary Chang

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.170	0.10	51.46	-	51.56	-	64.98
2	0.232	0.10	42.59	-	42.69	-	62.38	52.38	-19.68	-
3	0.287	0.11	38.59	-	38.70	-	60.62	50.62	-21.92	-
4	0.341	0.11	34.80	-	34.91	-	59.17	49.17	-24.26	-
5	3.480	0.19	26.89	-	27.08	-	56.00	46.00	-28.92	-
6	18.625	0.43	27.79	-	28.22	-	60.00	50.00	-31.78	-

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





4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dB μ V/m) *note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5725~5825	-27 *note 1	68.3
	-17 *note 2	78.3

NOTE:

1. For frequencies 10MHz or greater above or below the band edge.
2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
3. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$



4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 19, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 22, 2006
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 16, 2006
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2006
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Mar. 04, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Mar. 04, 2005
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 HwaYa Chamber 1.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The IC Site Registration No. is IC4924-2.



4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. 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 10dB 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 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

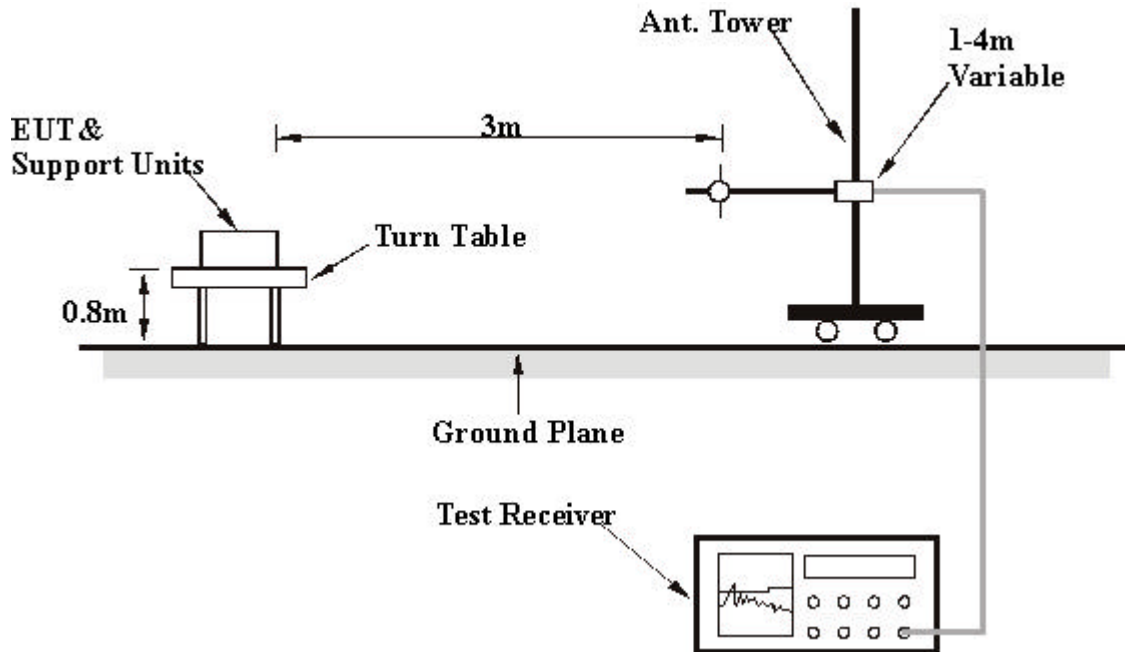
NOTE:

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 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.5 DEVIATION FROM TEST STANDARD

No deviation

4.2.6 TEST SETUP



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

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

4.2.8 TEST RESULTS

Below 1GHz Worst-Case Data (Antenna 3)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 59%RH, 991hPa	TESTED BY	Gary Chang
TEST MODE	A		

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	98.04	38.24 QP	43.50	-5.26	2.00 H	172	27.49	10.75
2	399.34	39.57 QP	46.00	-6.43	3.00 H	319	22.86	16.71
3	566.51	36.01 QP	46.00	-9.99	1.50 H	295	16.10	19.91
4	630.66	36.32 QP	46.00	-9.68	1.50 H	160	15.10	21.22
5	665.65	38.13 QP	46.00	-7.87	1.00 H	139	16.49	21.64
6	799.78	37.20 QP	46.00	-8.80	1.00 H	313	13.74	23.46

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	59.16	30.48 QP	40.00	-9.52	1.00 V	316	16.79	13.69
2	98.04	34.70 QP	43.50	-8.80	1.00 V	220	23.95	10.75
3	399.34	39.39 QP	46.00	-6.61	1.50 V	208	22.68	16.71
4	630.66	38.68 QP	46.00	-7.32	1.00 V	133	17.46	21.22
5	667.60	37.83 QP	46.00	-8.17	1.00 V	13	16.17	21.66
6	799.78	40.18 QP	46.00	-5.82	1.50 V	58	16.72	23.46
7	906.69	37.30 QP	46.00	-8.70	3.00 V	220	12.42	24.88

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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



Below 1GHz Worst-Case Data (Antenna 6)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 59%RH, 991hPa	TESTED BY	Gary Chang
TEST MODE	B		

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	74.71	29.34 QP	40.00	-10.66	1.50 H	178	18.09	11.25
2	156.35	34.11 QP	43.50	-9.39	2.00 H	223	19.26	14.85
3	397.39	40.77 QP	46.00	-5.23	1.00 H	352	24.10	16.67
4	630.66	37.28 QP	46.00	-8.72	1.50 H	166	16.06	21.22
5	665.65	39.45 QP	46.00	-6.55	2.00 H	226	17.81	21.64
6	799.78	41.05 QP	46.00	-4.95	1.00 H	331	17.60	23.46

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	61.10	30.56 QP	40.00	-9.44	1.50 V	343	17.08	13.49
2	98.04	33.96 QP	43.50	-9.54	1.00 V	10	23.21	10.75
3	133.03	31.77 QP	43.50	-11.73	1.00 V	199	17.88	13.89
4	364.35	34.53 QP	46.00	-11.47	1.50 V	148	18.66	15.87
5	399.34	38.74 QP	46.00	-7.26	1.50 V	52	22.02	16.71
6	566.51	35.40 QP	46.00	-10.60	1.00 V	1	15.48	19.91
7	630.66	34.74 QP	46.00	-11.26	1.50 V	166	13.52	21.22
8	663.71	39.41 QP	46.00	-6.59	1.00 V	166	17.80	21.62
9	795.89	37.29 QP	46.00	-8.71	2.50 V	58	13.85	23.44

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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



Below 1GHz Worst-Case Data (Antenna 9)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 59%RH, 991hPa	TESTED BY	Gary Chang
TEST MODE	C		

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	98.04	35.36 QP	43.50	-8.14	2.00 H	202	24.61	10.75
2	131.08	33.70 QP	43.50	-9.80	1.50 H	268	19.96	13.74
3	164.13	32.94 QP	43.50	-10.56	1.50 H	22	18.42	14.52
4	399.34	38.91 QP	46.00	-7.09	1.00 H	340	22.20	16.71
5	632.61	35.20 QP	46.00	-10.80	1.00 H	226	13.95	21.25
6	665.65	39.20 QP	46.00	-6.80	3.00 H	100	17.56	21.64
7	797.84	38.98 QP	46.00	-7.02	1.00 H	319	15.53	23.45

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	66.93	29.85 QP	40.00	-10.15	1.00 V	322	17.03	12.83
2	99.98	34.90 QP	43.50	-8.60	1.50 V	139	23.99	10.91
3	133.03	33.17 QP	43.50	-10.33	1.00 V	205	19.28	13.89
4	164.13	31.71 QP	43.50	-11.79	1.00 V	187	17.19	14.52
5	399.34	38.36 QP	46.00	-7.64	1.50 V	49	21.64	16.71
6	628.72	34.49 QP	46.00	-11.51	1.00 V	10	13.29	21.20
7	665.65	37.02 QP	46.00	-8.98	1.00 V	358	15.38	21.64
8	799.78	38.42 QP	46.00	-7.58	1.50 V	31	14.96	23.46

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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



Below 1GHz Worst-Case Data (Antenna 11)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 59%RH, 991hPa	TESTED BY	Gary Chang
TEST MODE	D		

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	98.04	35.36 QP	43.50	-8.14	2.00 H	190	24.62	10.75
2	164.13	35.00 QP	43.50	-8.50	1.00 H	46	20.48	14.52
3	397.39	38.37 QP	46.00	-7.63	2.00 H	136	21.70	16.67
4	630.66	34.00 QP	46.00	-12.00	1.50 H	163	12.78	21.22
5	663.71	35.32 QP	46.00	-10.68	1.00 H	109	13.70	21.62
6	799.78	38.21 QP	46.00	-7.79	1.00 H	304	14.75	23.46

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	61.10	28.21 QP	40.00	-11.79	1.00 V	325	14.72	13.49
2	98.04	33.23 QP	43.50	-10.27	1.00 V	196	22.48	10.75
3	164.13	32.17 QP	43.50	-11.33	1.00 V	178	17.66	14.52
4	399.34	39.17 QP	46.00	-6.83	1.50 V	31	22.46	16.71
5	667.60	39.38 QP	46.00	-6.62	1.00 V	25	17.72	21.66
6	799.78	35.24 QP	46.00	-10.76	1.50 V	262	11.78	23.46

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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



Below 1GHz Worst-Case Data (Antenna 12)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	Below 1000MHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 59%RH, 991hPa	TESTED BY	Gary Chang
TEST MODE	D		

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	133.03	33.16 QP	43.50	-10.34	3.00 H	262	19.27	13.89
2	164.13	35.36 QP	43.50	-8.14	2.00 H	67	20.84	14.52
3	199.12	33.20 QP	43.50	-10.30	1.50 H	79	21.85	11.34
4	397.39	37.21 QP	46.00	-8.79	1.00 H	16	20.54	16.67
5	665.65	35.93 QP	46.00	-10.07	1.00 H	280	14.29	21.64
6	795.89	38.99 QP	46.00	-7.01	1.00 H	310	15.54	23.44

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	66.93	29.55 QP	40.00	-10.45	1.00 V	307	16.72	12.83
2	131.08	31.81 QP	43.50	-11.69	2.00 V	37	18.08	13.74
3	164.13	32.06 QP	43.50	-11.44	1.00 V	151	17.54	14.52
4	399.34	39.67 QP	46.00	-6.33	2.50 V	310	22.95	16.71
5	667.60	33.70 QP	46.00	-12.30	2.00 V	16	12.04	21.66
6	795.89	36.65 QP	46.00	-9.35	1.50 V	10	13.21	23.44

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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



802.11a OFDM modulation (Antenna 3)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3453.00	48.43 PK	68.30	-19.87	1.30 H	185	14.67	33.75
2	#5120.00	52.75 PK	74.00	-21.25	1.07 H	169	14.54	38.21
2	#5120.00	43.27 AV	54.00	-10.73	1.07 H	169	5.06	38.21
3	*5180.00	108.64 PK			1.07 H	169	70.34	38.30
3	*5180.00	99.16 AV			1.07 H	169	60.86	38.30
4	#15540.00	61.95 PK	74.00	-12.05	1.12 H	17	11.64	50.31
4	#15540.00	49.47 AV	54.00	-4.53	1.12 H	17	-0.84	50.31

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	3453.00	49.09 PK	68.30	-19.21	1.07 V	63	15.33	33.75
2	#5120.00	46.47 PK	74.00	-27.53	1.17 V	68	8.26	38.21
2	#5120.00	37.30 AV	54.00	-16.70	1.17 V	68	-0.91	38.21
3	*5180.00	100.35 PK			1.17 V	68	62.05	38.30
3	*5180.00	91.20 AV			1.17 V	68	52.90	38.30
4	#15540.00	67.69 PK	74.00	-6.31	1.16 V	87	17.38	50.31
4	#15540.00	52.47 AV	54.00	-1.53	1.16 V	87	2.16	50.31

NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)

5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)

6. The other emission levels were very low against the limit.

7. Margin value = Emission level – Limit value

8. “*” : Fundamental frequency

9. “#” The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3493.00	47.14 PK	68.30	-21.16	1.00 H	360	13.33	33.81
2	*5240.00	108.04 PK			1.05 H	187	69.66	38.38
2	*5240.00	97.49 AV			1.05 H	187	59.11	38.38
3	#15720.00	60.10 PK	74.00	-13.90	1.19 H	29	10.26	49.85
3	#15720.00	47.88 AV	54.00	-6.12	1.19 H	29	-1.96	49.85

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	3493.00	49.08 PK	68.30	-19.22	1.02 V	39	15.27	33.81
2	*5240.00	99.90 PK			1.18 V	79	61.52	38.38
2	*5240.00	90.01 AV			1.18 V	79	51.63	38.38
3	#15720.00	64.61 PK	74.00	-9.39	1.28 V	84	14.77	49.85
3	#15720.00	51.25 AV	54.00	-2.75	1.28 V	84	1.41	49.85

NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)

1 Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)

The other emission levels were very low against the limit.

Margin value = Emission level – Limit value

“*” : Fundamental frequency

6. “#” The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3506.00	48.26 PK	68.30	-20.04	1.30 H	178	14.42	33.84
2	*5260.00	109.21 PK			1.16 H	186	70.81	38.40
2	*5260.00	100.03 AV			1.16 H	186	61.63	38.40
3	#15780.00	59.60 PK	74.00	-14.40	1.18 H	354	9.94	49.65
3	#15780.00	46.93 AV	54.00	-7.07	1.18 H	354	-2.73	49.65

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)	Correction Factor (dB/m)
1	3506.00	49.03 PK	68.30	-19.27	1.42 V	33	15.19	33.84
2	*5260.00	100.20 PK			1.15 V	186	61.80	38.40
2	*5260.00	91.50 AV			1.15 V	186	53.10	38.40
3	#15780.00	59.55 PK	74.00	-14.45	1.13 V	216	9.89	49.65
3	#15780.00	46.74 AV	54.00	-7.26	1.13 V	216	-2.92	49.65

NOTE: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)

Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)

The other emission levels were very low against the limit.

Margin value = Emission level – Limit value

“*” : Fundamental frequency

6. “#” The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3546.00	47.99 PK	68.30	-20.31	1.25 H	181	14.00	33.99
2	*5320.00	109.10 PK			1.03 H	184	70.62	38.48
2	*5320.00	99.70 AV			1.03 H	184	61.22	38.48
3	#5350.00	50.88 PK	74.00	-23.12	1.03 H	184	12.37	38.52
3	#5350.00	40.45 AV	54.00	-13.55	1.03 H	184	1.94	38.52
4	#15960.00	59.24 PK	74.00	-14.76	1.07 H	197	10.05	49.19
4	#15960.00	46.84 AV	54.00	-7.16	1.07 H	197	-2.35	49.19

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	3546.00	48.65 PK	68.30	-19.65	1.00 V	38	14.66	33.99
2	*5320.00	101.26 PK			1.14 V	75	62.78	38.48
2	*5320.00	90.40 AV			1.14 V	75	51.92	38.48
3	#5350.00	43.97 PK	74.00	30.03	1.14 V	75	5.45	38.52
3	#5350.00	34.07 AV	54.00	-19.93	1.14 V	75	-4.45	38.52
4	#15960.00	62.75 PK	74.00	-11.25	1.25 V	85	13.56	49.19
4	#15960.00	48.65 AV	54.00	-5.35	1.25 V	85	-0.54	49.19

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



802.11a OFDM modulation (Antenna 6)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3453.00	47.30 PK	68.30	-21.00	1.14 H	258	12.43	34.87
2	#5120.00	49.52 PK	74.00	-24.48	1.05 H	154	10.47	39.05
2	#5120.00	40.36 AV	54.00	-13.64	1.05 H	154	1.31	39.05
3	*5180.00	105.41 PK			1.05 H	154	66.31	39.10
3	*5180.00	95.75 AV			1.05 H	154	56.65	39.10
4	#15540.00	62.30 PK	74.00	-11.70	1.59 H	81	11.89	50.41
4	#15540.00	50.84 AV	54.00	-3.16	1.59 H	81	0.43	50.41

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	3453.00	50.25 PK	68.30	-18.05	1.14 V	268	15.38	34.87
2	#5120.00	42.38 PK	74.00	-31.62	1.16 V	85	3.33	39.05
3	*5180.00	96.27 PK			1.16 V	85	57.17	39.10
3	*5180.00	87.04 AV			1.16 V	85	47.94	39.10
4	#15540.00	66.17 PK	74.00	-7.83	1.15 V	157	15.76	50.41
4	#15540.00	52.11 AV	54.00	-1.89	1.15 V	157	1.70	50.41

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3493.00	45.87 PK	68.30	-22.43	1.63 H	28	11.00	34.87
2	*5240.00	103.46 PK			1.12 H	328	64.28	39.18
2	*5240.00	92.85 AV			1.12 H	328	53.67	39.18
3	#15720.00	61.52 PK	74.00	-12.48	1.50 H	24	11.55	49.97
3	#15720.00	48.30 AV	54.00	-5.70	1.50 H	24	-1.67	49.97

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	3493.00	49.89 PK	68.30	-18.41	1.18 V	28	15.02	34.87
2	*5240.00	95.21 PK			1.05 V	229	56.03	39.18
2	*5240.00	85.50 AV			1.05 V	229	46.32	39.18
3	#15720.00	64.70 PK	74.00	-9.30	1.15 V	27	14.73	49.97
3	#15720.00	51.83 AV	54.00	-2.17	1.15 V	27	1.86	49.97

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3506.00	47.99 PK	68.30	-20.31	1.47 H	89	13.40	34.59
2	*5260.00	104.69 PK			1.16 H	194	65.58	39.11
2	*5260.00	95.39 AV			1.16 H	194	56.28	39.11
3	#15780.00	61.83 PK	74.00	-12.17	1.55 H	184	12.52	49.31
3	#15780.00	48.60 AV	54.00	-5.40	1.55 H	184	-0.71	49.31

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	3506.00	51.22 PK	68.30	-17.08	1.17 V	347	16.63	34.59
2	*5260.00	95.96 PK			1.38 V	39	56.85	39.11
2	*5260.00	87.19 AV			1.38 V	39	48.08	39.11
3	#15780.00	63.43 PK	74.00	-10.57	1.14 V	289	14.12	49.31
3	#15780.00	50.87 AV	54.00	-3.13	1.14 V	289	1.56	49.31

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3546.00	48.37 PK	68.30	-19.93	1.63 H	257	13.64	34.73
2	*5320.00	104.66 PK			1.16 H	342	65.44	39.22
2	*5320.00	95.05 AV			1.16 H	342	55.83	39.22
3	#5350.00	46.87 PK	74.00	-27.13	1.16 H	342	7.62	39.25
4	#15960.00	59.38 PK	74.00	-14.62	1.76 H	35	10.58	48.80
4	#15960.00	47.40 AV	54.00	-6.60	1.76 H	35	-1.40	48.80

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)	Correction Factor (dB/m)
1	3546.00	50.30 PK	68.30	-18.00	1.17 V	108	15.57	34.73
2	*5320.00	96.81 PK			1.52 V	133	57.59	39.22
2	*5320.00	85.93 AV			1.52 V	133	46.71	39.22
3	#5350.00	40.17 PK	74.00	-33.83	1.52 V	133	0.92	39.25
4	#15960.00	62.37 PK	74.00	-11.63	1.15 V	36	13.57	48.80
4	#15960.00	50.17 AV	54.00	-3.83	1.15 V	36	1.37	48.80

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



802.11a OFDM modulation (Antenna 9)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3453.00	47.62 PK	68.30	-20.68	1.52 H	227	12.75	34.87
2	5120.00	48.38 PK	74.00	-25.62	1.13 H	20	9.33	39.05
3	*5180.00	104.27 PK			1.13 H	20	65.17	39.10
3	*5180.00	94.83 AV			1.13 H	20	55.73	39.10
4	#15540.00	61.46 PK	74.00	-12.54	1.13 H	354	11.05	50.41
4	#15540.00	49.97 AV	54.00	-4.03	1.13 H	354	-0.44	50.41

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	3453.00	51.33 PK	68.30	-16.97	1.47 V	258	16.46	34.87
2	#5120.00	43.49 AV	54.00	-10.51	1.52 V	210	4.44	39.05
3	*5180.00	95.82 PK			1.52 V	210	56.72	39.10
3	*5180.00	86.64 AV			1.52 V	210	47.54	39.10
4	#15540.00	66.48 PK	74.00	-7.52	1.47 V	258	16.07	50.41
4	315540.00	52.21 AV	54.00	-1.79	1.47 V	258	1.80	50.41

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3493.00	49.30 PK	68.30	-19.00	1.47 H	57	14.43	34.87
2	*5240.00	103.02 PK			1.16 H	351	63.84	39.18
2	*5240.00	92.26 AV			1.16 H	351	53.08	39.18
3	#15720.00	61.17 PK	74.00	-12.83	1.25 H	144	11.20	49.97
3	#15720.00	49.30 AV	54.00	-4.70	1.25 H	144	-0.67	49.97

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	3493.00	48.87 PK	68.30	-19.43	1.54 V	118	14.00	34.87
2	*5240.00	94.73 PK			1.07 V	178	55.55	39.18
2	*5240.00	85.04 AV			1.07 V	178	45.86	39.18
3	#15720.00	61.47 PK	74.00	-12.53	1.56 V	213	11.50	49.97
3	#15720.00	49.30 AV	54.00	-4.70	1.56 V	213	-0.67	49.97

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3506.00	46.80 PK	68.30	-21.50	1.06 H	360	11.91	34.89
2	*5260.00	104.08 PK			1.13 H	26	64.87	39.21
2	*5260.00	94.93 AV			1.13 H	26	55.72	39.21
3	#15780.00	61.96 PK	74.00	-12.04	1.43 H	28	12.12	49.84
3	#15780.00	49.09 AV	54.00	-4.91	1.43 H	28	-0.75	49.84

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	3056.00	52.41 PK	68.30	-15.89	1.14 V	320	18.14	34.27
2	*5260.00	95.52 PK			1.35 V	342	56.31	39.21
2	*5260.00	86.63 AV			1.35 V	342	47.42	39.21
3	#15780.00	62.84 PK	74.00	-11.16	1.63 V	244	13.00	49.84
3	#15780.00	50.49 AV	54.00	-3.51	1.63 V	244	0.65	49.84

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3546.00	48.31 PK	68.30	-19.99	1.14 H	204	13.31	35.00
2	*5320.00	104.10 PK			1.40 H	358	64.81	39.29
2	*5320.00	94.58 AV			1.40 H	358	55.29	39.29
3	#5350.00	45.81 PK	74.00	-28.19	1.40 H	358	6.50	39.31
4	#15960.00	59.84 PK	74.00	-14.16	1.16 H	342	10.45	49.39
4	#15960.00	48.02 AV	54.00	-5.98	1.16 H	342	-1.37	49.39

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	3546.00	51.83 PK	68.30	-16.47	1.07 V	103	16.83	35.00
2	*5320.00	96.21 PK			1.06 V	189	56.92	39.29
2	*5320.00	85.39 AV			1.06 V	189	46.10	39.29
3	#5350.00	40.63 PK	74.00	-33.37	1.06 V	189	1.32	39.31
4	#15960.00	62.10 PK	74.00	-11.90	1.15 V	29	12.71	49.39
4	#15960.00	51.03 AV	54.00	-2.97	1.15 V	29	1.64	49.39

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



802.11a OFDM modulation (Antenna 11)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3453.00	51.46 PK	68.30	-16.84	1.00 H	172	17.19	34.27
2	#5120.00	51.18 PK	74.00	-22.82	1.11 H	177	12.63	38.55
2	#5120.00	41.01 AV	54.00	-12.99	1.11 H	177	2.46	38.55
3	*5180.00	107.78 PK			1.11 H	177	69.12	38.66
3	*5180.00	97.61 AV			1.11 H	177	58.95	38.66
4	#15540.00	61.47 PK	74.00	-12.53	1.09 H	32	10.97	50.50
4	#15540.00	49.17 AV	54.00	-4.83	1.09 H	32	-1.33	50.50

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	3453.00	49.47 PK	68.30	-18.83	1.37 V	199	15.20	34.27
2	#5120.00	44.22 PK	74.00	-29.78	1.74 V	266	5.67	38.55
2	#5120.00	33.61 AV	54.00	-20.39	1.74 V	266	-4.94	38.55
3	*5180.00	98.82 PK			1.74 V	266	60.16	38.66
3	*5180.00	89.21 AV			1.74 V	266	50.55	38.66
4	#15540.00	63.38 PK	74.00	-10.62	1.37 V	199	12.88	50.50
4	#15540.00	49.21 AV	54.00	-4.79	1.37 V	199	-1.29	50.50

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3493.00	48.85 PK	68.30	-19.45	1.30 H	174	14.56	34.30
2	*5240.00	105.80 PK			1.01 H	187	67.03	38.77
2	*5240.00	95.20 AV			1.01 H	187	56.43	38.77
3	#15720.00	60.19 PK	74.00	-13.81	1.10 H	85	9.94	50.25
3	#15720.00	47.65 AV	54.00	-6.35	1.10 H	85	-2.60	50.25

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	3493.00	49.79 PK	68.30	-18.51	1.00 V	193	15.50	34.30
2	*5240.00	98.50 PK			1.23 V	236	59.73	38.77
2	*5240.00	88.20 AV			1.23 V	236	49.43	38.77
3	#15720.00	61.87 PK	74.00	-12.13	1.09 V	237	11.62	50.25
3	#15720.00	48.56 AV	54.00	-5.44	1.09 V	237	-1.69	50.25

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3506.00	50.35 PK	68.30	-17.95	1.20 H	138	16.03	34.32
2	*5260.00	107.12 PK			1.00 H	179	68.30	38.82
2	*5260.00	97.89 AV			1.00 H	179	59.07	38.82
3	#15780.00	59.43 PK	74.00	-14.57	1.07 H	328	9.28	50.15
3	#15780.00	46.58 AV	54.00	-7.42	1.07 H	328	-3.57	50.15

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	3506.00	49.53 PK	68.30	-18.77	1.04 V	213	15.21	34.32
2	*5260.00	98.15 PK			1.23 V	233	59.33	38.82
2	*5260.00	89.46 AV			1.23 V	233	50.64	38.82
3	#15780.00	59.62 PK	74.00	-14.38	1.07 V	134	9.47	50.15
3	#15780.00	46.73 AV	54.00	-7.27	1.07 V	134	-3.42	50.15

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3546.00	49.01 PK	68.30	-19.29	1.06 H	91	14.58	34.43
2	*5320.00	107.24 PK			1.00 H	181	68.31	38.93
2	*5320.00	97.65 AV			1.00 H	181	58.72	38.93
3	#5350.00	49.40 PK	74.00	-24.60	1.00 H	181	10.42	38.98
3	#5350.00	39.01 AV	54.00	-14.99	1.00 H	181	0.03	38.98
4	#15960.00	59.14 PK	74.00	-14.86	1.07 H	81	9.24	49.90
4	#15960.00	46.53 AV	54.00	-7.47	1.07 H	81	-3.37	49.90

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	3546.00	49.82 PK	68.30	-18.48	1.09 V	213	15.39	34.43
2	*5320.00	99.38 PK			1.40 V	249	60.45	38.93
2	*5320.00	88.46 AV			1.40 V	249	49.53	38.93
3	#5350.00	42.34 PK	74.00	-31.66	1.40 V	249	3.37	38.98
3	#5350.00	31.92 AV	54.00	-22.08	1.40 V	249	-7.05	38.98
4	#15960.00	60.13 PK	74.00	-13.87	1.02 V	228	10.23	49.90
4	#15960.00	47.38 AV	54.00	-6.62	1.02 V	228	-2.52	49.90

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



802.11a OFDM modulation (Antenna 12)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3453.00	48.85 PK	68.30	-19.45	1.06 H	321	13.98	34.87
2	#5120.00	53.58 PK	74.00	-20.42	1.10 H	329	14.53	39.05
2	#5120.00	44.34 AV	54.00	-9.66	1.10 H	329	5.29	39.05
3	*5180.00	109.47 PK			1.10 H	329	70.37	39.10
3	*5180.00	100.23 AV			1.10 H	329	61.13	39.10
4	#15540.00	62.98 PK	74.00	-11.02	1.13 H	207	12.57	50.41
4	#15540.00	50.21 AV	54.00	-3.79	1.13 H	207	-0.20	50.41

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	3453.00	49.17 PK	68.30	-19.13	1.00 V	36	14.30	34.87
2	#5120.00	45.73 PK	74.00	-28.27	1.18 V	182	6.68	39.05
3	*5180.00	101.62 PK			1.18 V	182	62.52	39.10
3	*5180.00	92.01 AV			1.18 V	182	52.91	39.10
4	#15540.00	65.84 PK	74.00	-8.16	1.06 V	118	15.43	50.41
4	#15540.00	52.10 AV	54.00	-1.90	1.06 V	118	1.69	50.41

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3493.00	46.81 PK	68.30	-21.49	1.45 H	227	11.94	34.87
2	*5240.00	109.69 PK			1.01 H	13	70.51	39.18
2	*5240.00	98.84 AV			1.01 H	13	59.66	39.18
3	#15720.00	61.74 PK	74.00	-12.26	1.46 H	254	11.77	49.97
3	#15720.00	48.33 AV	54.00	-5.67	1.46 H	254	-1.64	49.97

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	3493.00	50.14 PK	68.30	-18.16	1.03 V	339	15.27	34.87
2	*5240.00	100.89 PK			1.13 V	210	61.71	39.18
2	*5240.00	91.32 AV			1.13 V	210	52.14	39.18
3	#15720.00	65.41 PK	74.00	-8.59	1.16 V	314	15.44	49.97
3	#15720.00	51.04 AV	54.00	-2.96	1.16 V	314	1.07	49.97

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 5	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3506.00	47.48 PK	68.30	-20.82	1.24 H	159	12.59	34.89
2	*5260.00	110.31 PK			1.24 H	329	71.10	39.21
2	*5260.00	101.19 AV			1.24 H	329	61.98	39.21
3	#15780.00	61.90 PK	74.00	-12.10	1.03 H	295	12.06	49.84
3	#15780.00	48.47 AV	54.00	-5.53	1.03 H	295	-1.37	49.84

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	3506.00	51.33 PK	68.30	-16.97	1.47 V	327	16.44	34.89
2	*5260.00	101.30 PK			1.02 V	220	62.09	39.21
2	*5260.00	92.43 AV			1.02 V	220	53.22	39.21
3	#15780.00	64.21 PK	74.00	-9.79	1.34 V	102	14.37	49.84
3	#15780.00	50.87 AV	54.00	-3.13	1.34 V	102	1.03	49.84

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 8	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3546.00	45.90 PK	68.30	-22.40	1.57 H	101	10.90	35.00
2	*5320.00	110.39 PK			1.16 H	351	71.10	39.29
2	*5320.00	101.02 AV			1.16 H	351	61.73	39.29
3	#5350.00	53.10 PK	74.00	-20.90	1.16 H	351	13.79	39.31
3	#5350.00	43.73 AV	54.00	-10.27	1.16 H	351	4.41	39.31
4	#15960.00	60.38 PK	74.00	-13.62	1.42 H	236	10.99	49.39
4	#15960.00	48.26 AV	54.00	-5.74	1.42 H	236	-1.13	49.39

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	3546.00	51.69 PK	68.30	-16.61	1.36 V	108	16.69	35.00
2	*5320.00	102.74 PK			1.16 V	184	63.45	39.29
2	*5320.00	91.95 AV			1.16 V	184	52.66	39.29
3	#5350.00	45.45 PK	74.00	-28.55	1.16 V	184	6.14	39.31
4	#15960.00	63.84 PK	74.00	-10.16	1.00 V	294	14.45	49.39
4	#15960.00	51.24 AV	54.00	-2.76	1.00 V	294	1.85	49.39

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.

**802.11a Turbo OFDM modulation (Antenna 3)**

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3473.00	47.66 PK	68.30	-20.64	1.30 H	136	13.87	33.78
2	#5120.00	52.89 PK	74.00	-21.11	1.05 H	172	14.68	38.21
2	#5120.00	42.99 AV	54.00	-11.01	1.05 H	172	4.78	38.21
3	*5210.00	104.88 PK			1.05 H	172	66.54	38.34
3	*5210.00	94.88 AV			1.05 H	172	56.54	38.34
4	#15630.00	59.79 PK	74.00	-14.21	1.05 H	136	9.72	50.07
4	#15630.00	48.05 AV	54.00	-5.95	1.05 H	136	-2.02	50.07

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	3473.00	47.43 PK	68.30	-20.87	1.23 V	21	13.64	33.78
2	#5120.00	45.22 PK	74.00	-28.78	1.18 V	67	7.01	38.21
2	#5120.00	35.28 AV	54.00	-18.72	1.18 V	67	-2.93	38.21
3	*5210.00	95.30 PK			1.18 V	67	56.96	38.34
3	*5210.00	85.00 AV			1.18 V	67	46.66	38.34
4	#15630.00	62.97 PK	74.00	-11.03	1.23 V	84	12.90	50.07
4	#15630.00	50.83 AV	54.00	-3.17	1.23 V	84	0.76	50.07

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3500.00	46.37 PK	68.30	-21.93	1.32 H	4	12.55	33.82
2	*5250.00	105.94 PK			1.05 H	182	67.55	38.39
2	*5250.00	95.58 AV			1.05 H	182	57.19	38.39
3	#15750.00	59.20 PK	74.00	-14.80	1.05 H	132	9.45	49.75
3	#15750.00	46.93 AV	54.00	-7.07	1.05 H	132	-2.82	49.75

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	3500.00	48.94 PK	68.30	-19.36	1.03 V	38	15.12	33.82
2	*5250.00	96.80 PK			1.17 V	77	58.41	38.39
2	*5250.00	86.10 AV			1.17 V	77	47.71	38.39
3	#15750.00	59.24 PK	74.00	-14.76	1.05 V	279	9.49	49.75
3	#15750.00	47.13 AV	54.00	-6.87	1.05 V	279	-2.62	49.75

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	18deg. C, 58%RH, 991hPa	TESTED BY	Match Tsui
TEST MODE	A		

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	3526.00	47.06 PK	68.30	-21.24	1.27 H	191	13.15	33.92
2	*5290.00	105.20 PK			1.04 H	182	66.76	38.44
2	*5290.00	95.02 AV			1.04 H	182	56.58	38.44
3	#5350.00	49.22 PK	74.00	-24.78	1.04 H	182	10.70	38.52
3	#5350.00	39.04 AV	54.00	-14.96	1.04 H	182	0.52	38.52
4	#15870.00	58.63 PK	74.00	-15.37	1.05 H	338	9.20	49.43
4	#15870.00	46.49 AV	54.00	-7.51	1.05 H	338	-2.94	49.43

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	3526.00	48.20 PK	68.30	-20.10	1.00 V	33	14.29	33.92
2	*5290.00	95.89 PK			1.16 V	81	57.45	38.44
2	*5290.00	86.78 AV			1.16 V	81	48.34	38.44
3	#5350.00	40.51 PK	74.00	-33.49	1.16 V	81	1.99	38.52
3	#5350.00	31.40 AV	54.00	-22.60	1.16 V	81	-7.12	38.52
4	#15870.00	58.72 PK	74.00	-15.28	1.12 V	268	9.29	49.43
4	#15870.00	46.35 AV	54.00	-7.65	1.12 V	268	-3.08	49.43

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.

**802.11a Turbo OFDM modulation (Antenna 6)**

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3473.00	46.25 PK	68.30	-22.05	1.17 H	254	11.68	34.57
2	#5120.00	49.41 PK	74.00	-24.59	1.08 H	328	10.51	38.90
2	#5120.00	42.99 AV	54.00	-11.01	1.08 H	328	4.09	38.90
3	*5210.00	101.30 PK			1.08 H	328	62.28	39.02
3	*5210.00	89.84 AV			1.08 H	328	50.82	39.02
4	#15630.00	60.21 PK	74.00	-13.79	1.51 H	109	10.54	49.67
4	#15630.00	49.78 AV	54.00	-4.22	1.51 H	109	0.11	49.67

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	3473.00	48.15 PK	68.30	-20.15	1.00 V	24	13.58	34.57
2	#5120.00	40.48 PK	74.00	-33.52	1.19 V	186	1.58	38.90
3	*5210.00	92.47 PK			1.19 V	186	53.45	39.02
3	*5210.00	82.84 AV			1.19 V	186	43.82	39.02
4	#15630.00	62.58 PK	74.00	-11.42	1.42 V	89	12.91	49.67
4	#15630.00	50.31 AV	54.00	-3.69	1.42 V	89	0.64	49.67

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3500.00	45.10 PK	68.30	-23.20	1.08 H	6	10.53	34.57
2	*5250.00	102.10 PK			1.14 H	347	63.00	39.09
2	*5250.00	91.81 AV			1.14 H	347	52.72	39.09
3	#15750.00	60.24 PK	74.00	-13.76	1.18 H	142	10.86	49.38
3	#15750.00	48.36 AV	54.00	-5.64	1.18 H	142	-1.02	49.38

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	3500.00	47.98 PK	68.30	-20.32	1.57 V	19	13.41	34.57
2	*5250.00	91.95 PK			1.05 V	209	52.86	39.09
2	*5250.00	82.41 AV			1.05 V	209	43.31	39.09
3	#15750.00	61.49 PK	74.00	-12.51	1.18 V	144	12.11	49.38
3	#15750.00	50.23 AV	54.00	-3.77	1.18 V	144	0.85	49.38

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	B		

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	3526.00	47.62 PK	68.30	-20.68	1.41 H	358	12.96	34.66
2	*5290.00	100.28 PK			1.48 H	54	61.11	39.17
2	*5290.00	90.17 AV			1.48 H	54	51.00	39.17
3	#5350.00	44.90 PK	74.00	-29.10	1.48 H	54	5.65	39.25
4	#15870.00	59.62 PK	74.00	-14.38	1.05 H	178	10.59	49.03
4	#15870.00	48.89 AV	54.00	-5.11	1.05 H	178	-0.14	49.03

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	3526.00	49.20 PK	68.30	-19.10	1.41 V	14	14.54	34.66
2	*5290.00	91.59 PK			1.41 V	14	52.42	39.17
2	*5290.00	81.84 AV			1.41 V	14	42.67	39.17
3	#5350.00	36.21 PK	74.00	-37.79	1.41 V	14	-3.04	39.25
4	#15870.00	60.84 PK	74.00	-13.16	1.47 V	196	11.81	49.03
4	#15870.00	49.98 AV	54.00	-4.02	1.47 V	196	0.95	49.03

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.

**802.11a Turbo OFDM modulation (Antenna 9)**

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3473.00	47.69 PK	68.30	-20.61	1.54 H	227	12.82	34.87
2	#5120.00	48.51 PK	74.00	-25.49	1.04 H	23	9.46	39.05
3	*5210.00	100.40 PK			1.04 H	23	61.27	39.13
3	*5210.00	89.43 AV			1.04 H	23	50.30	39.13
4	#15630.00	61.29 PK	74.00	-12.71	1.06 H	347	11.13	50.16
4	#15630.00	50.33 AV	54.00	-3.67	1.06 H	347	0.17	50.16

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	3473.00	49.87 PK	68.30	-18.43	1.02 V	217	15.00	34.87
2	#5120.00	40.95 PK	74.00	-33.05	1.21 V	183	1.90	39.05
3	*5210.00	91.84 PK			1.21 V	183	52.71	39.13
3	*5210.00	82.31 AV			1.21 V	183	43.18	39.13
4	#15630.00	62.63 PK	74.00	-11.37	1.16 V	328	12.47	50.16
4	#15630.00	51.02 AV	54.00	-2.98	1.16 V	328	0.86	50.16

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3500.00	46.21 PK	68.30	-22.09	1.47 H	258	11.34	34.87
2	*5250.00	101.41 PK			1.52 H	20	62.21	39.20
2	*5250.00	91.04 AV			1.52 H	20	51.85	39.20
3	#15750.00	60.03 PK	74.00	-13.97	1.14 H	285	10.12	49.91
3	#15750.00	48.94 AV	54.00	-5.06	1.14 H	285	-0.97	49.91

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	3500.00	49.26 PK	68.30	-19.04	1.54 V	174	14.39	34.87
2	*5250.00	91.86 PK			1.00 V	268	52.66	39.20
2	*5250.00	82.04 AV			1.00 V	268	42.85	39.20
3	#15750.00	61.48 PK	74.00	-12.52	1.14 V	107	11.57	49.91
3	#15750.00	49.87 AV	54.00	-4.13	1.14 V	107	-0.04	49.91

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	C		

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	3526.00	46.87 PK	68.30	-21.43	1.40 H	196	11.92	34.95
2	*5290.00	99.47 PK			1.16 H	23	60.21	39.26
2	*5290.00	89.84 AV			1.16 H	23	50.59	39.26
3	#5350.00	44.09 PK	74.00	-29.91	1.16 H	23	4.78	39.31
4	#15870.00	60.32 PK	74.00	-13.68	1.17 H	308	10.73	49.59
4	#15870.00	49.05 AV	54.00	-4.95	1.17 H	308	-0.54	49.59

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	3526.00	48.91 PK	68.30	-19.39	1.04 V	288	13.96	34.95
2	*5290.00	91.03 PK			1.14 V	201	51.77	39.26
2	*5290.00	81.45 AV			1.14 V	201	42.20	39.26
3	#5350.00	36.65 PK	74.00	-37.35	1.14 V	201	-2.66	39.31
4	#15870.00	61.63 PK	74.00	-12.37	1.16 V	328	12.04	49.59
4	#15870.00	51.34 AV	54.00	-2.66	1.16 V	328	1.75	49.59

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.

**802.11a Turbo OFDM modulation (Antenna 11)**

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3473.00	47.58 PK	68.30	-20.72	1.06 H	83	13.30	34.28
2	#5120.00	53.83 PK	74.00	-20.17	1.13 H	2	15.28	38.55
2	#5120.00	42.92 AV	54.00	-11.08	1.13 H	2	4.37	38.55
3	*5210.00	104.20 PK			1.13 H	2	65.49	38.71
3	*5210.00	93.50 AV			1.13 H	2	54.79	38.71
4	#15630.00	61.82 PK	74.00	-12.18	1.16 H	323	11.45	50.37
4	#15630.00	49.72 AV	54.00	-4.28	1.16 H	323	-0.65	50.37

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	3473.00	48.64 PK	68.30	-19.66	1.00 V	62	14.35	34.28
2	#5120.00	44.10 PK	74.00	-29.90	1.37 V	80	5.55	38.55
3	*5210.00	93.58 PK			1.37 V	80	54.87	38.71
3	*5210.00	84.50 AV			1.37 V	80	45.79	38.71
4	#15630.00	62.42 PK	74.00	-11.58	1.00 V	25	12.05	50.37
4	#15630.00	49.86 AV	54.00	-4.14	1.00 V	25	-0.51	50.37

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3500.00	47.30 PK	68.30	-21.00	1.07 H	76	13.00	34.30
2	*5250.00	104.50 PK			1.13 H	3	65.70	38.80
2	*5250.00	93.40 AV			1.13 H	3	54.61	38.80
3	#15750.00	62.92 PK	74.00	-11.08	1.13 H	28	12.72	50.20
3	#15750.00	50.08 AV	54.00	-3.92	1.13 H	28	-0.12	50.20

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	3500.00	48.11 PK	68.30	-20.19	1.06 V	61	13.81	34.30
2	*5250.00	94.50 PK			1.25 V	8	55.70	38.80
2	*5250.00	84.10 AV			1.25 V	8	45.30	38.80
3	#15750.00	63.58 PK	74.00	-10.42	1.09 V	38	13.38	50.20
3	#15750.00	51.00 AV	54.00	-3.00	1.09 V	38	0.80	50.20

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 61%RH, 991hPa	TESTED BY	Brad Wu
TEST MODE	D		

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	3526.00	48.01 PK	68.30	-20.29	1.06 H	18	13.63	34.38
2	*5290.00	103.20 PK			1.12 H	5	64.32	38.88
2	*5290.00	92.50 AV			1.12 H	5	53.62	38.88
3	#5353.00	47.14 PK	74.00	-26.86	1.12 H	5	8.16	38.98
4	#15870.00	61.35 PK	74.00	-12.65	1.07 H	23	11.32	50.03
4	#15870.00	49.31 AV	54.00	-4.69	1.07 H	23	-0.72	50.03

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	3526.00	48.55 PK	68.30	-19.75	1.01 V	199	14.17	34.38
2	*5290.00	94.50 PK			1.25 V	75	55.62	38.88
2	*5290.00	84.50 AV			1.25 V	75	45.62	38.88
3	#5353.00	40.37 PK	74.00	-33.63	1.25 V	75	1.39	38.98
4	#15870.00	61.87 PK	74.00	-12.13	1.20 V	322	11.84	50.03
4	#15870.00	49.84 AV	54.00	-4.16	1.20 V	322	-0.19	50.03

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. “*” : Fundamental frequency
 6. “#” The radiated frequency falling in the restricted band.



802.11a Turbo OFDM modulation (Antenna 12)

EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3473.00	47.50 PK	68.30	-20.80	1.63 H	229	12.63	34.87
2	#5120.00	53.47 PK	74.00	-20.53	1.05 H	317	14.42	39.05
2	#5120.00	43.76 AV	54.00	-10.24	1.05 H	317	4.71	39.05
3	*5210.00	105.46 PK			1.05 H	317	66.32	39.13
3	*5210.00	95.75 AV			1.05 H	317	56.62	39.13
4	#15630.00	60.36 PK	74.00	-13.64	1.42 H	330	10.20	50.16
4	#15630.00	49.94 AV	54.00	-4.06	1.42 H	330	-0.22	50.16

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	3473.00	51.20 PK	68.30	-17.10	1.06 V	237	16.33	34.87
2	#5120.00	44.85 PK	74.00	-29.15	1.18 V	173	5.80	39.05
3	*5210.00	96.84 PK			1.18 V	173	57.71	39.13
3	*5210.00	87.26 AV			1.18 V	173	48.13	39.13
4	#15630.00	63.84 PK	74.00	-10.16	1.04 V	204	13.68	50.16
4	#15630.00	50.47 AV	54.00	-3.53	1.04 V	204	0.31	50.16

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 2	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3500.00	46.85 PK	68.30	-21.45	1.06 H	118	11.98	34.87
2	*5250.00	106.63 PK			1.14 H	12	67.44	39.20
2	*5250.00	96.87 AV			1.14 H	12	57.68	39.20
3	#15750.00	59.87 PK	74.00	-14.13	1.63 H	36	9.96	49.91
3	#15750.00	48.99 AV	54.00	-5.01	1.63 H	36	-0.91	49.91

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	3500.00	51.84 PK	68.30	-16.46	1.02 V	228	16.97	34.87
2	*5250.00	96.87 PK			1.55 V	194	57.68	39.20
2	*5250.00	87.31 AV			1.55 V	194	48.12	39.20
3	#15750.00	61.24 PK	74.00	-12.76	1.06 V	274	11.34	49.91
3	#15750.00	49.86 AV	54.00	-4.14	1.06 V	274	-0.05	49.91

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



EUT	Wireless Mini PCI Card	MODEL	WLL4070
CHANNEL	Channel 3	FREQUENCY RANGE	1 ~ 40 GHz
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 61%RH, 991hPa	TESTED BY	Long Chen
TEST MODE	E		

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	3526.00	47.95 PK	68.30	-20.35	1.42 H	27	13.00	34.95
2	*5290.00	106.41 PK			1.04 H	11	67.16	39.26
2	*5290.00	96.70 AV			1.04 H	11	57.45	39.26
3	#5350.00	51.03 PK	74.00	-22.97	1.04 H	11	11.72	39.31
3	#5350.00	41.32 AV	54.00	-12.68	1.04 H	11	2.01	39.31
4	#15870.00	59.69 PK	74.00	-14.31	1.25 H	109	10.10	49.59
4	#15870.00	48.95 AV	54.00	-5.05	1.25 H	109	-0.64	49.59

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	3526.00	49.17 PK	68.30	-19.13	1.01 V	180	14.22	34.95
2	*5290.00	96.94 PK			1.41 V	205	57.68	39.26
2	*5290.00	87.61 AV			1.41 V	205	48.35	39.26
3	#5350.00	41.56 PK	74.00	-32.44	1.41 V	205	2.25	39.31
4	#15870.00	61.92 PK	74.00	-12.08	1.17 V	298	12.33	49.59
4	#15870.00	50.04 AV	54.00	-3.96	1.17 V	298	0.45	49.59

- NOTE:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 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. "*" : Fundamental frequency
 6. "#" The radiated frequency falling in the restricted band.



4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

NOTE: 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

1. The transmitter output was connected to the spectrum analyzer.
2. Set span to encompass the entire emission bandwidth of the signal.
3. Set RBW to 1MHz, VBW to 300kHz.
4. Using the spectrum analyzer's channel power measurement function to measure the output power.

NOTE:

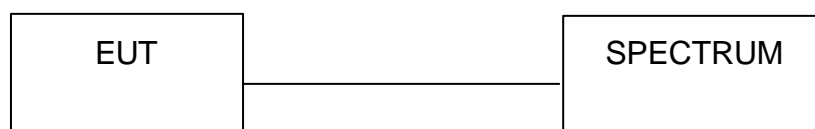
The test is performed in accordance with FCC Public Notice: APPENDIX A Guidelines for Assessing Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E, August 2002.

The transmitter output operates continuously therefore Method # 3 is used.

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 specific channel frequencies individually.

4.3.7 TEST RESULTS

802.11a OFDM modulation

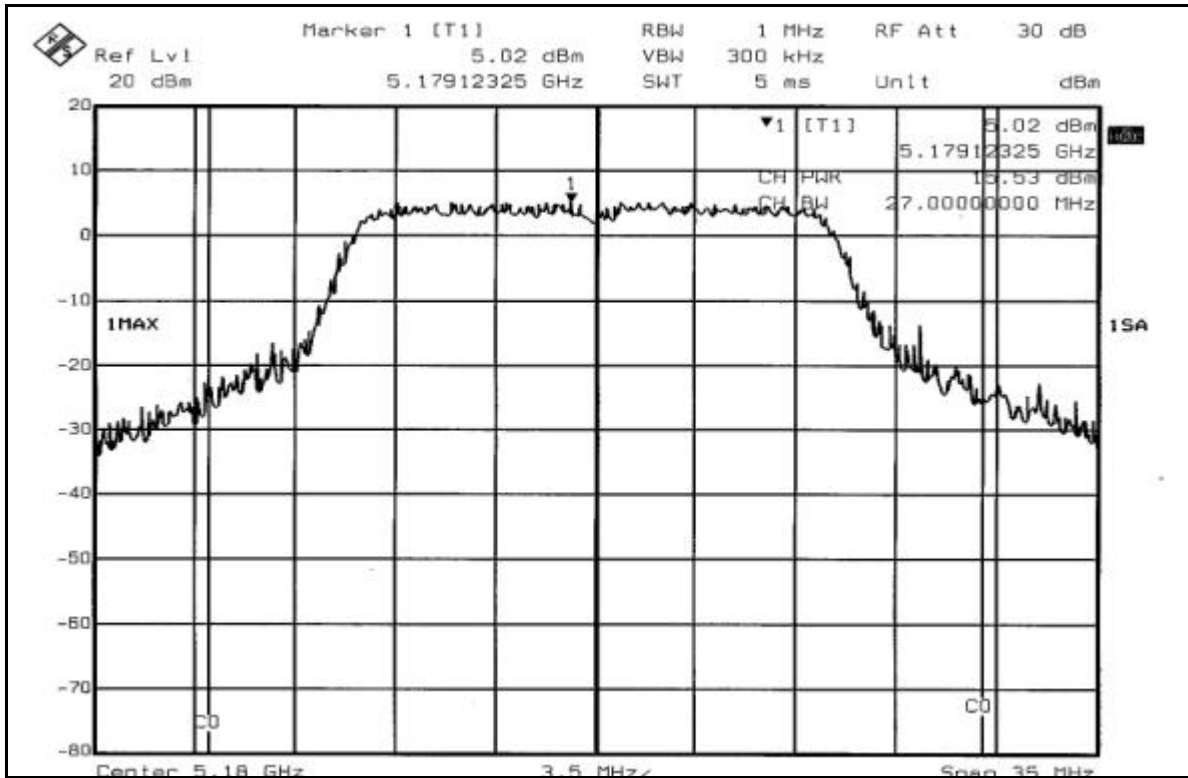
EUT	Wireless Mini PCI Card	MODEL	WLL4070
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 52%RH, 991hPa
TESTED BY	Gary Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5180	35.727	15.53	17.00	26.61	PASS
4	5240	35.975	15.56	17.00	24.77	PASS
5	5260	36.058	15.57	24.00	25.33	PASS
8	5320	35.810	15.54	24.00	25.57	PASS

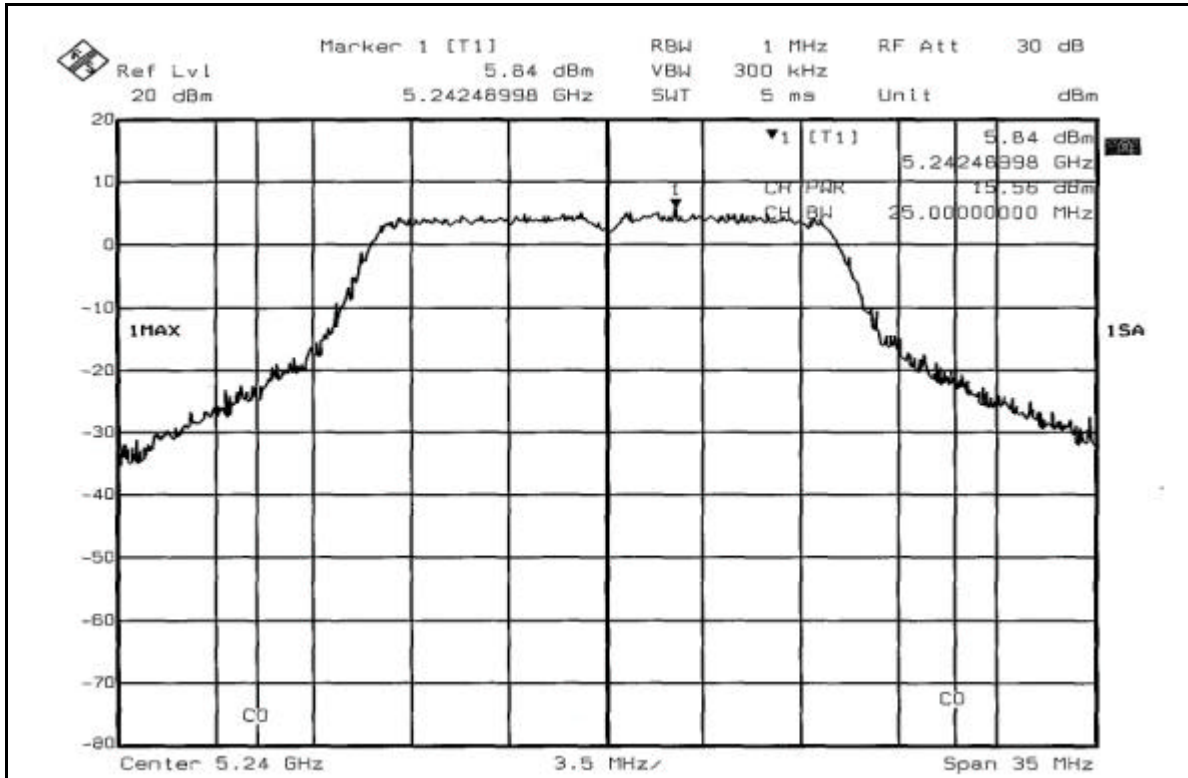
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.



Peak Power Output:
CH1

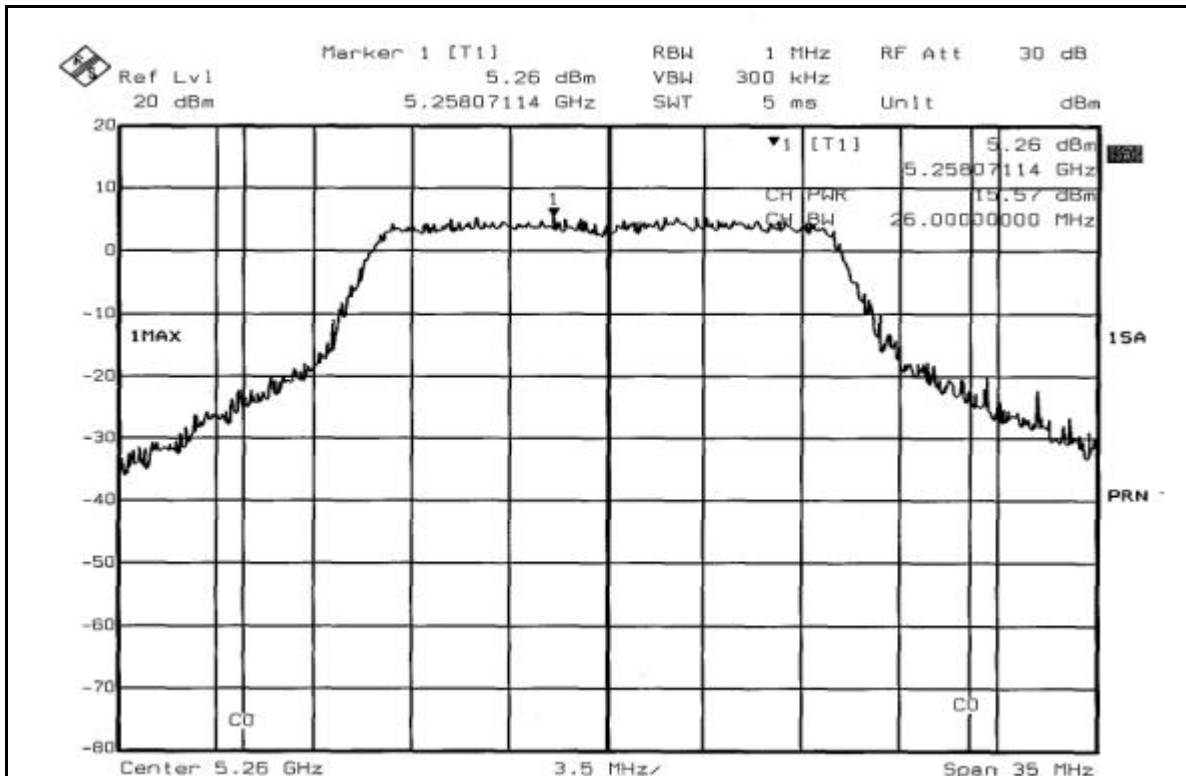


CH4

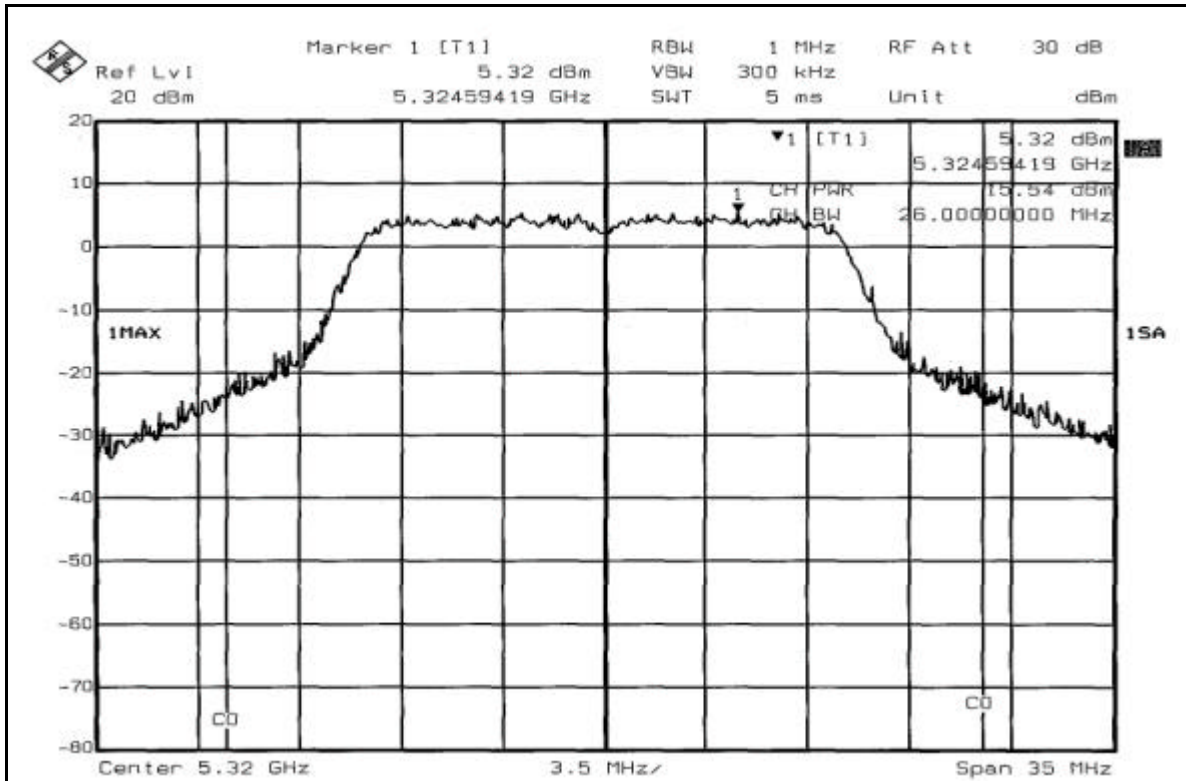




CH5

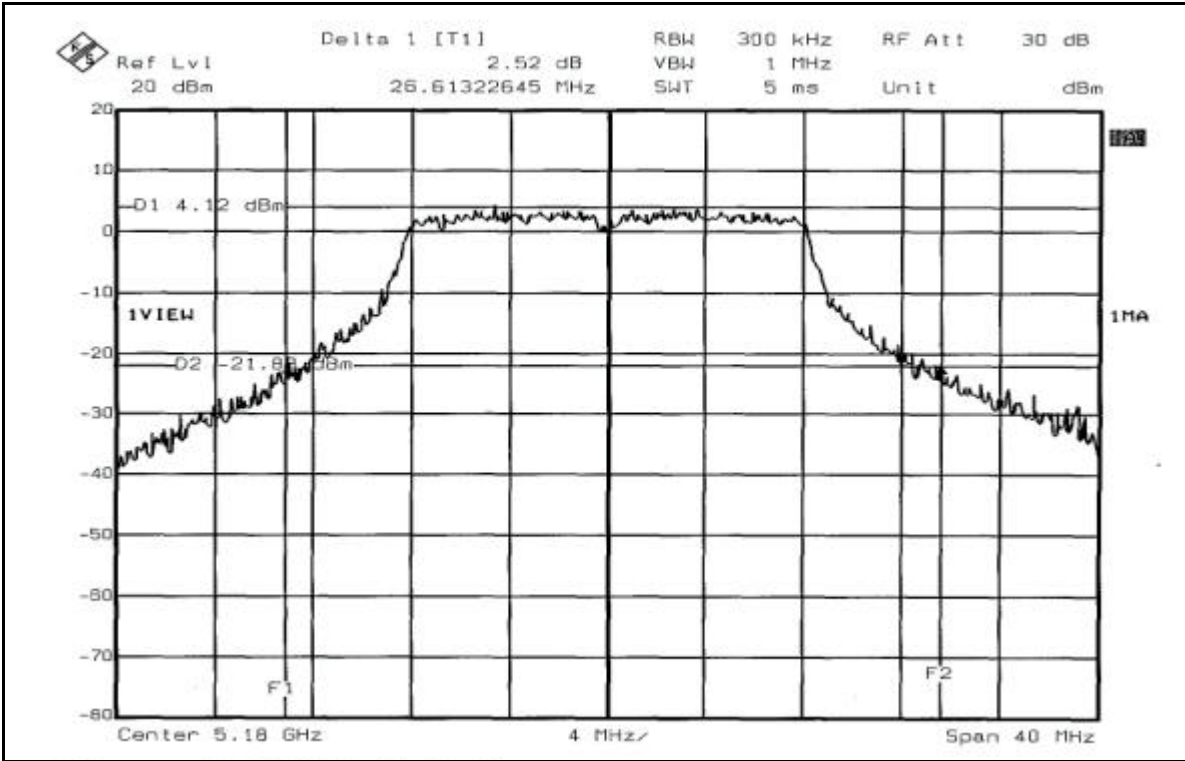


CH8

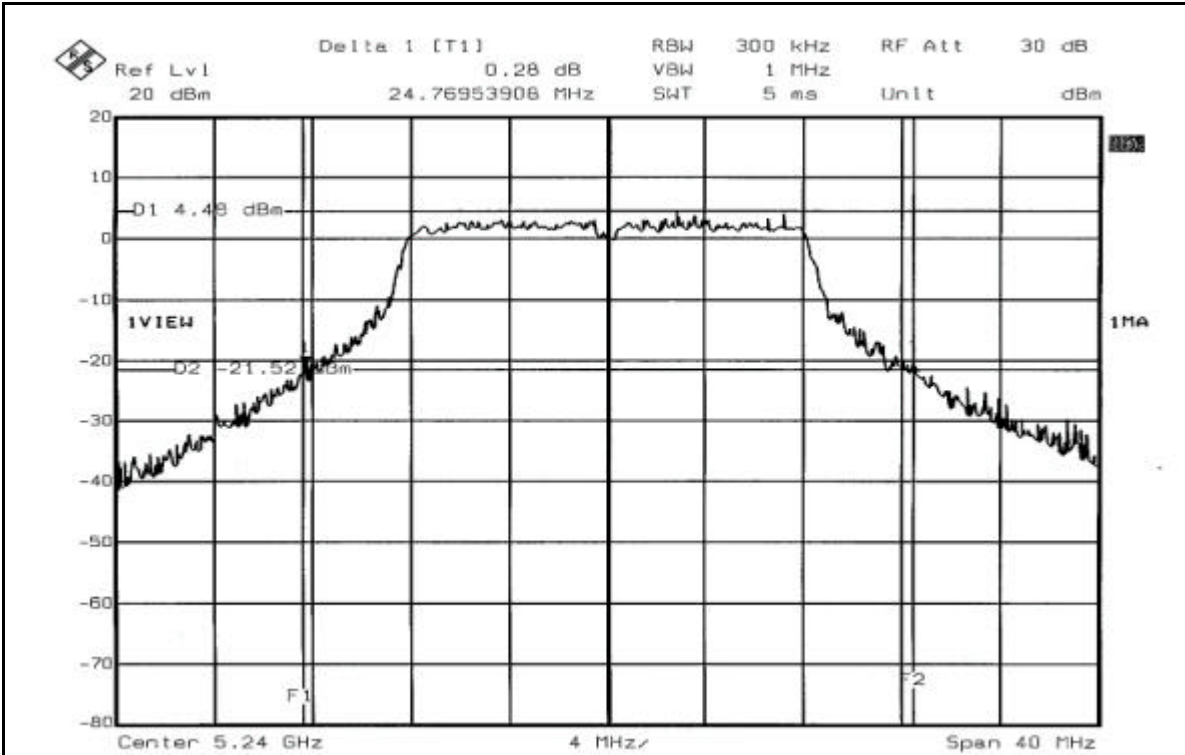




26dB Occupied Bandwidth:
CH1

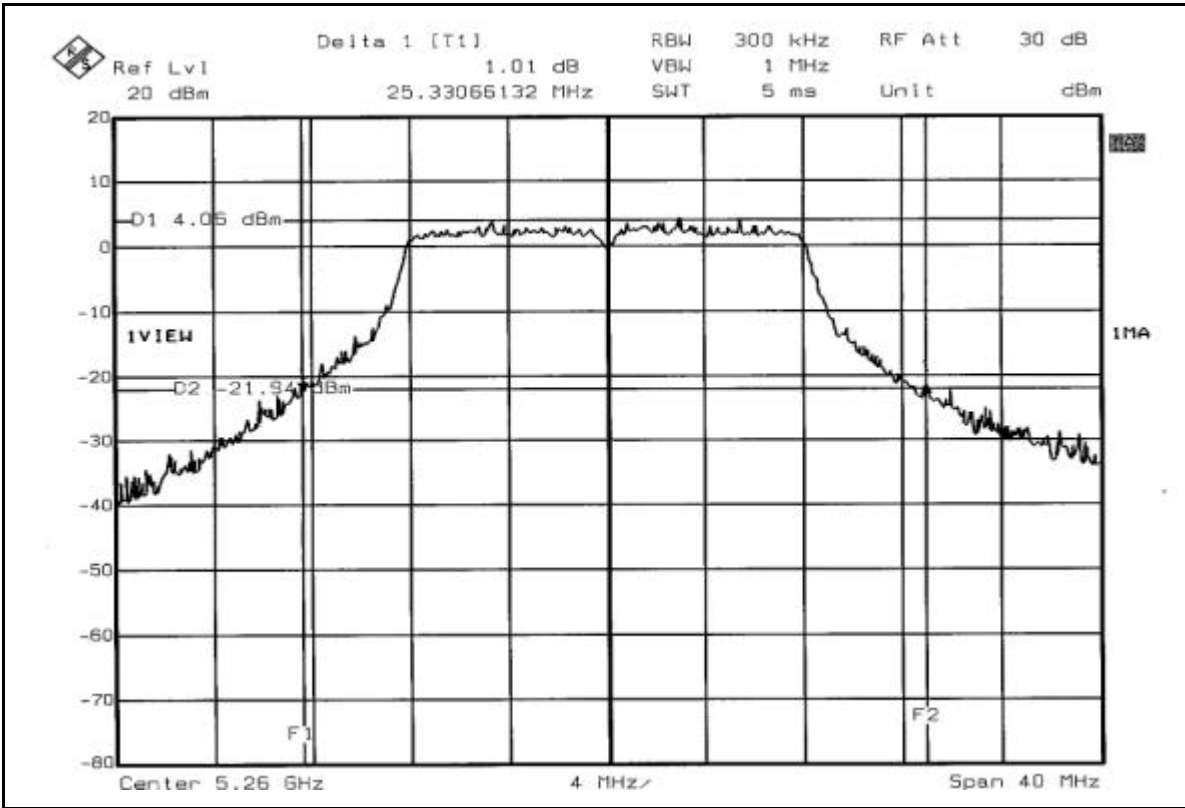


CH4

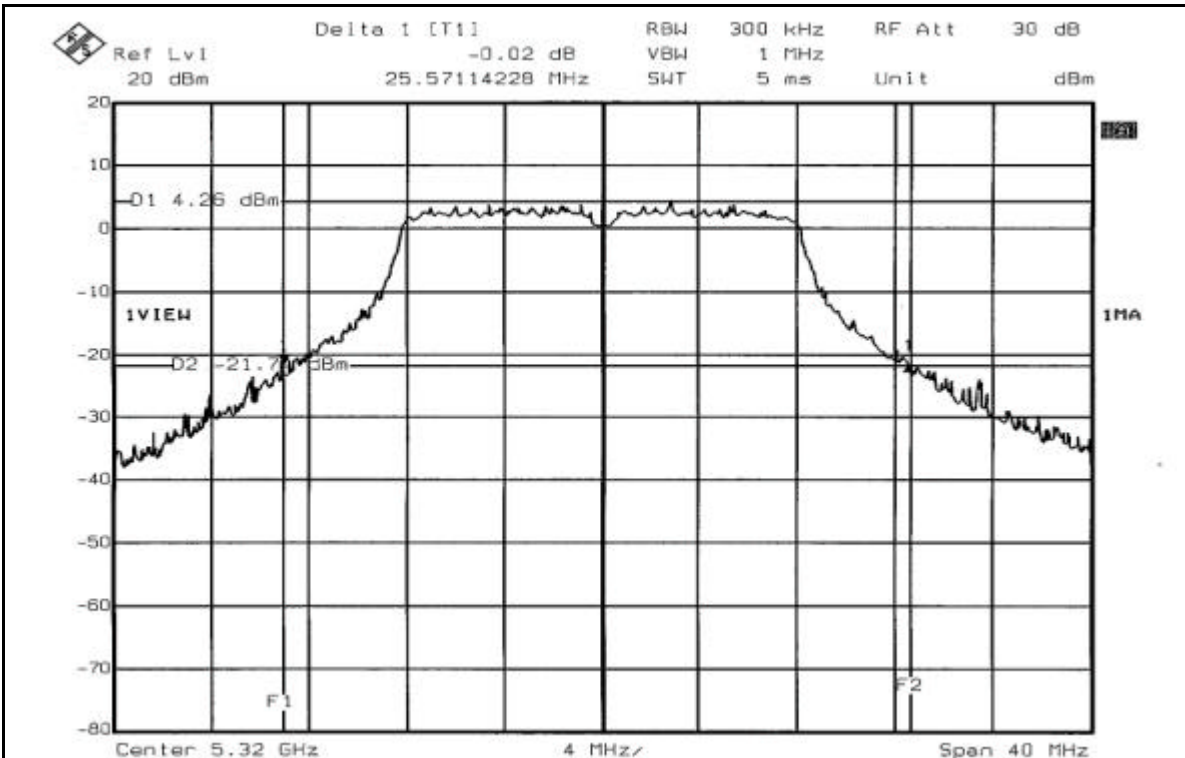




CH5



CH8





802.11a Turbo OFDM modulation

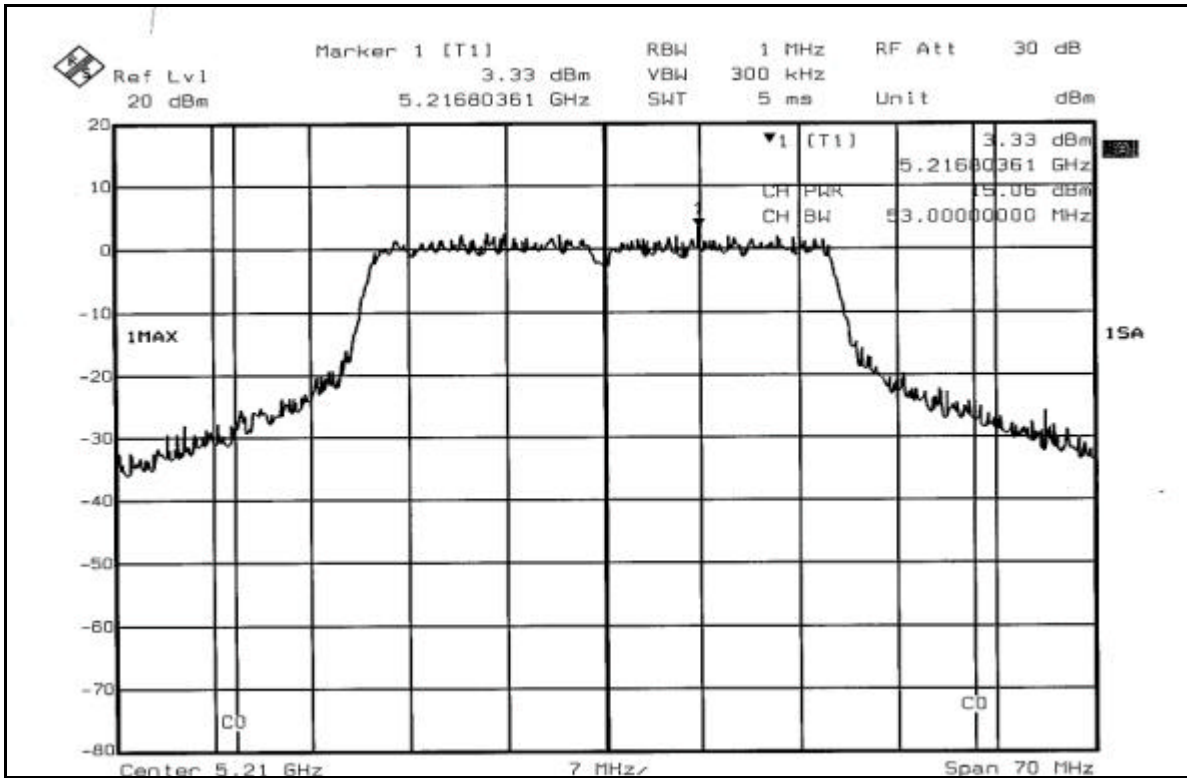
EUT	Wireless Mini PCI Card	MODEL	WLL4070
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	25deg.C, 52%RH, 991hPa
TESTED BY	Gary Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	26dBc Occupied Bandwidth (MHz)	PASS/FAIL
1	5210	32.063	15.06	17.00	52.75	PASS
2	5250	32.137	15.07	17.00	50.82	PASS
3	5290	32.434	15.11	24.00	51.14	PASS

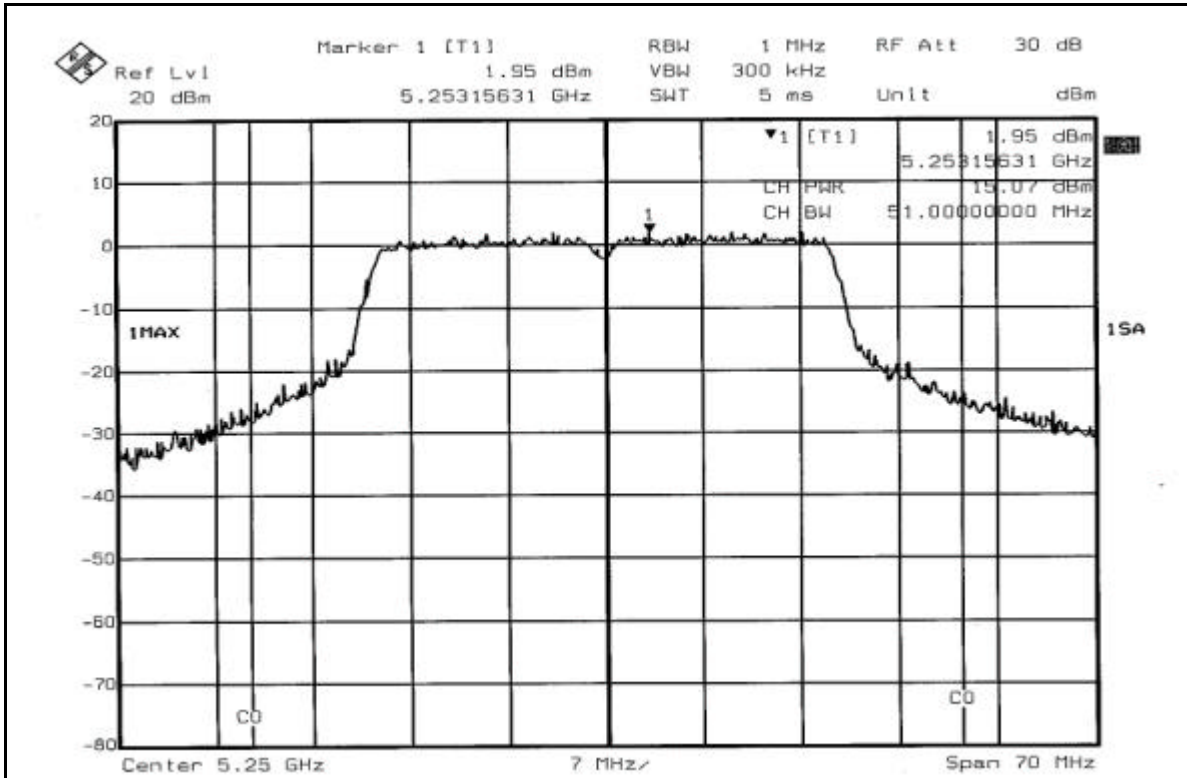
NOTE: The 26dBc Occupied Bandwidth plot, please refer to the following pages.



Peak Power Output:
CH1

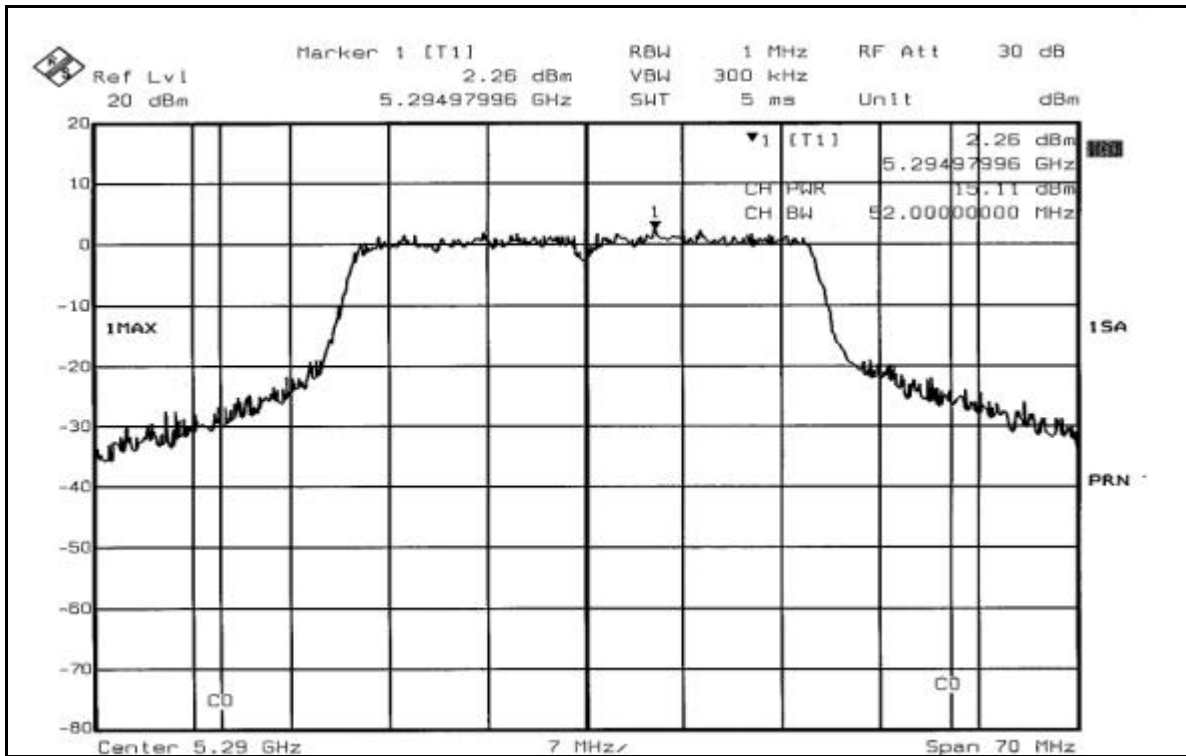


CH2



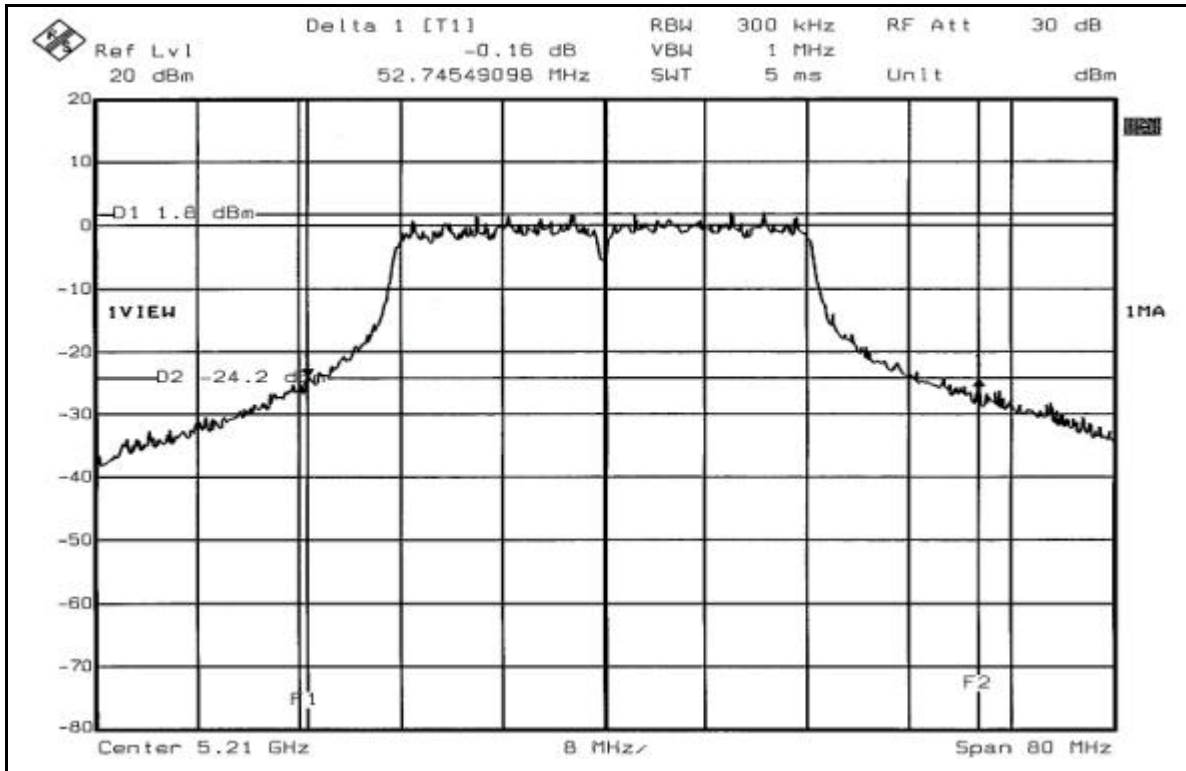


CH3



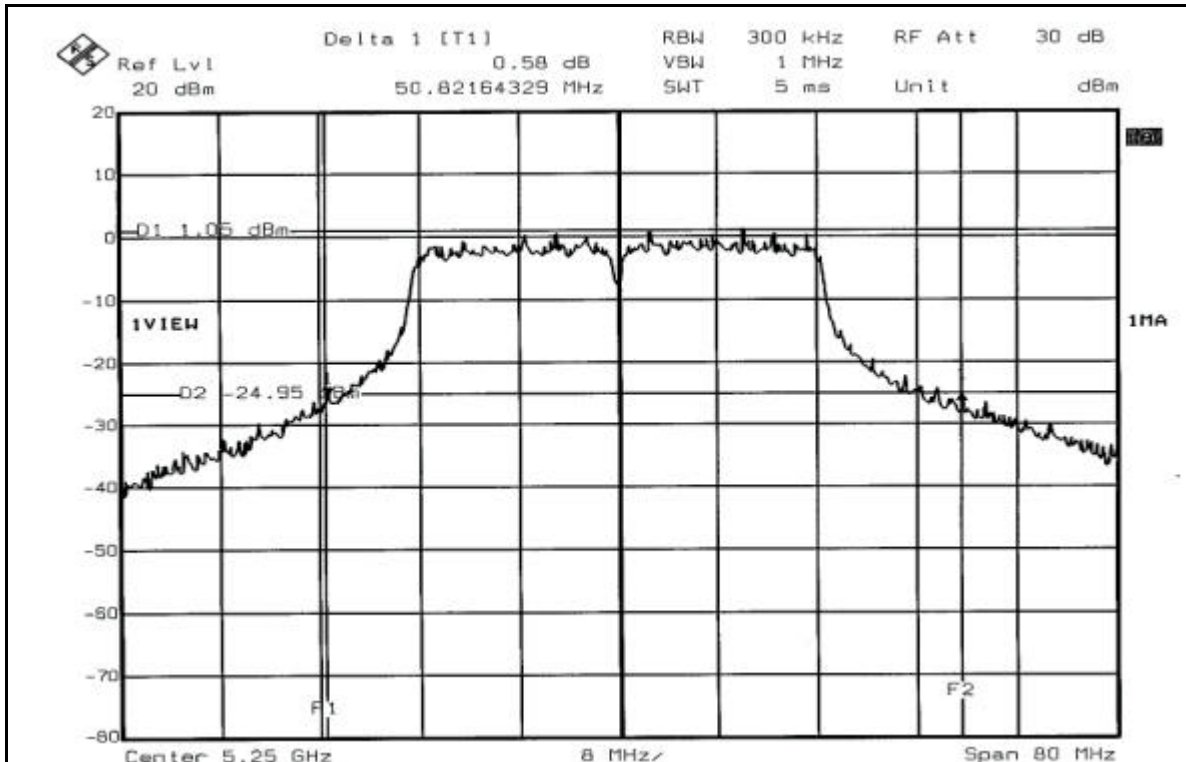
26dB Occupied Bandwidth:

CH1





CH2



CH3

