FCC TEST REPORT

REPORT NO.: RF940406H04
MODEL NO.: WL-463
RECEIVED: April 07, 2005
TESTED: April 29 to May 27, 2005
ISSUED: June 13, 2005

APPLICANT: Accton Technology Corporation

ADDRESS: No.1, Creation Rd. III, Science-based Industrial Park, Hsinchu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

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

0536
ILAC MRA

No. 2177-01

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1 CERTIFICATION

PRODUCT :	Upgrade Kit - 802.11g
BRAND NAME :	3Com
MODEL NO. :	WL-463
TESTED:	April 29 to May 27, 2005
APPLICANT :	Accton Technology Corporation
TEST ITEM:	R&D SAMPLE
STANDARDS :	47 CFR Part 15, Subpart C (Section 15.247), ANSI C63.4-2003

The above equipment (Model: WL-463) 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 : _____ , **DATE:** June 13, 2005
(Midoli Peng)

TECHNICAL ACCEPTANCE : _____ , **DATE:** June 13, 2005
Responsible for RF
(Hank Chung)

APPROVED BY : _____ , **DATE:** June 13, 2005
(Eric Lin, Manager)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is –13.38 dB at 1.49 MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247(c)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is –0.6dB at 2368.00 MHz
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
15.247(c)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Upgrade Kit - 802.11g
MODEL NO.	WL-463
POWER SUPPLY	DC 48V from POE
MODULATION TYPE	CCK, OFDM, DBPSK, DQPSK
RADIO 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)
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	802.11b & 802.11g: 11 (1 for 802.11g Turbo mode)
OUTPUT POWER	11b: 18.25dBm 11g: 20.05dBm
ANTENNA TYPE	Please see note 1 on next page
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with the original design is as the following:

   ◆ Add four antennas and three antenna cables provided to this EUT:

Antenna				
No.	**Model**	**Antenna Type**	**2.4/ 5GHz Antenna Gain**	**Connector Type**
1	3CWE591 (Z1996)	High gain omni antenna	6 / 8 dBi	N Female
2	3CWE598 (Z1997)	Medium gain panel antenna	8 / 10 dBi	N Female
3	3CWE592	Ceiling omni antenna	3 / 4 dBi	N Female
4	3CWE597 (Z2000)	Hallway bi-directional antenna	6 / 8 dBi	N Female
Antenna cable				
No.	**Model**	**Cable Length**	**2.4/ 5GHz Cable Loss**	**Connector Type**
1	3CWE580	6 ft ULL antenna cable	-0.6/ -1.2 dB	SMA to N
2	3CWE581	20 ft ULL antenna cable	-2/ -4 dB	SMA to N
3	3CWE582	50ft ULL antenna cable	-5/-10 dB	SMA to N

Note: 1. Antenna 2 is point to point antenna.

2. The EUT was operated with the following POE (Power over Ethernet):

POE:	
Brand:	3Com
Model No.:	PW130RA4800N02
Input power :	AC100-250V, 0.5A, 50/60Hz
Output power :	DC 48V, 0.42A

3. The EUT was tested under the following test modes:

Test Mode	**Description**
Mode 1	EUT + 3CWE580 + 3CWE591 (Z1996) (6 dBi)
Mode 2	EUT + 3CWE580 + 3CWE598 (Z1997) (8 dBi)
Mode 3	EUT + 3CWE580 + 3CWE592 (3 dBi)
Mode 4	EUT + 3CWE580 + 3CWE597 (Z2000) (6 dBi)

4. 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 2400 ~ 2483.5MHz band:

For 802.11b/g normal mode: Eleven channels are provided to this EUT.

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

For 802.11g turbo mode: One channel is provided to this EUT

Channel	Frequency
6	2437 MHz

3.3 TEST MODE APPLICABLITY AND TESTED CHANNEL DETAIL:

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
-	x	x	x	x	NA

Where PLC: Power Line Conducted Emission RE<1G RE: Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz APCM: Antenna Port Conducted Measurement

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.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11g	1 to 11	1, 6, 11	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.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11g	1 to 11	11	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.

Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11g turbo	6	6	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)
802.11b	1 to 11	1, 11	DSSS	CCK	11
802.11g	1 to 11	1, 11	OFDM	BPSK	6
802.11g turbo	6	6	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)
802.11b	1 to 11	1, 6, 11	DSSS	CCK	11
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11g turbo	6	6	OFDM	BPSK	12

3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an Upgrade Kit - 802.11g. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart C. (15.247)
ANSI C63.4 : 2003

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of 47 CFR Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.5 DESCRIPTION OF SUPPORT UNITS

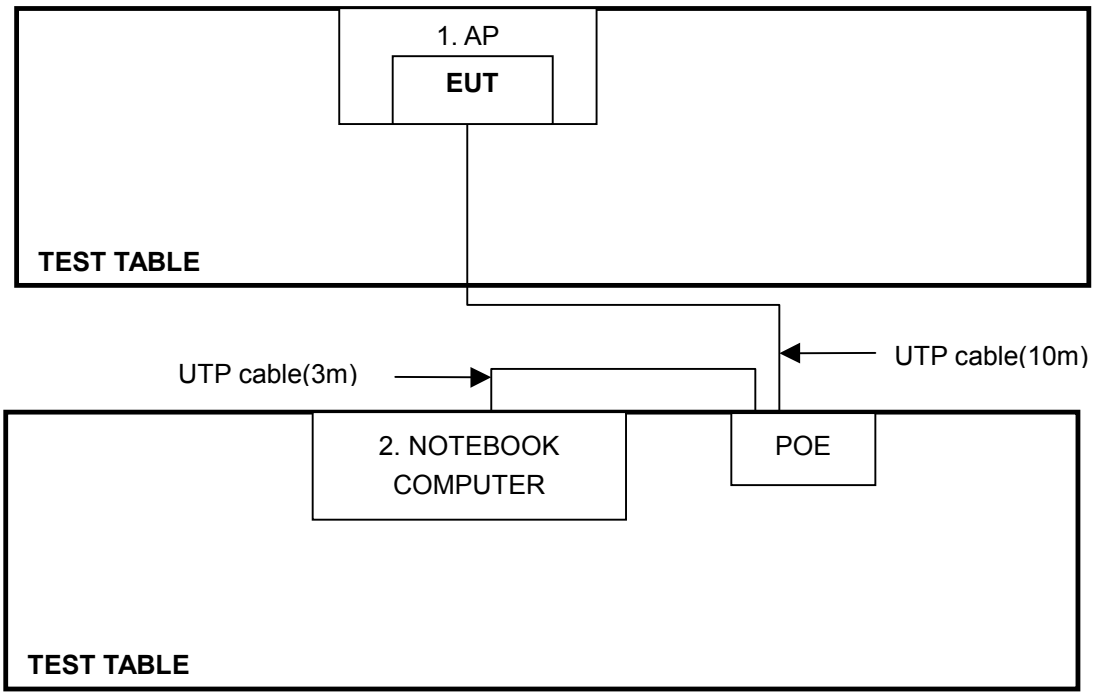
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	AP	3Com	AP8850	NA	NA
2	NOTEBOOK COMPUTER	DELL	PP01L	TW-09c748-12800-165-3171	FCC DoC

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

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

3.6 CONFIGURATION OF SYSTEM UNDER TEST



NOTE: 1. Please refer to the photos of test configuration in Item 5 also.

a. TEST TYPES AND RESULTS

3.7 CONDUCTED EMISSION MEASUREMENT

3.7.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE:

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

3.7.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	847124/029	Dec. 07, 2005
ROHDE & SCHWARZ LISN (for EUT)	ESHS-Z5	848773/004	Nov. 08, 2005
KYORITSU LISN (for peripheral)	KNW-407	8/1395/12	Jul. 23, 2005
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 02, 2005
Terminator(for KYORITSU)	50	3	Oct. 12, 2005
Software	Cond-V2e	NA	NA

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

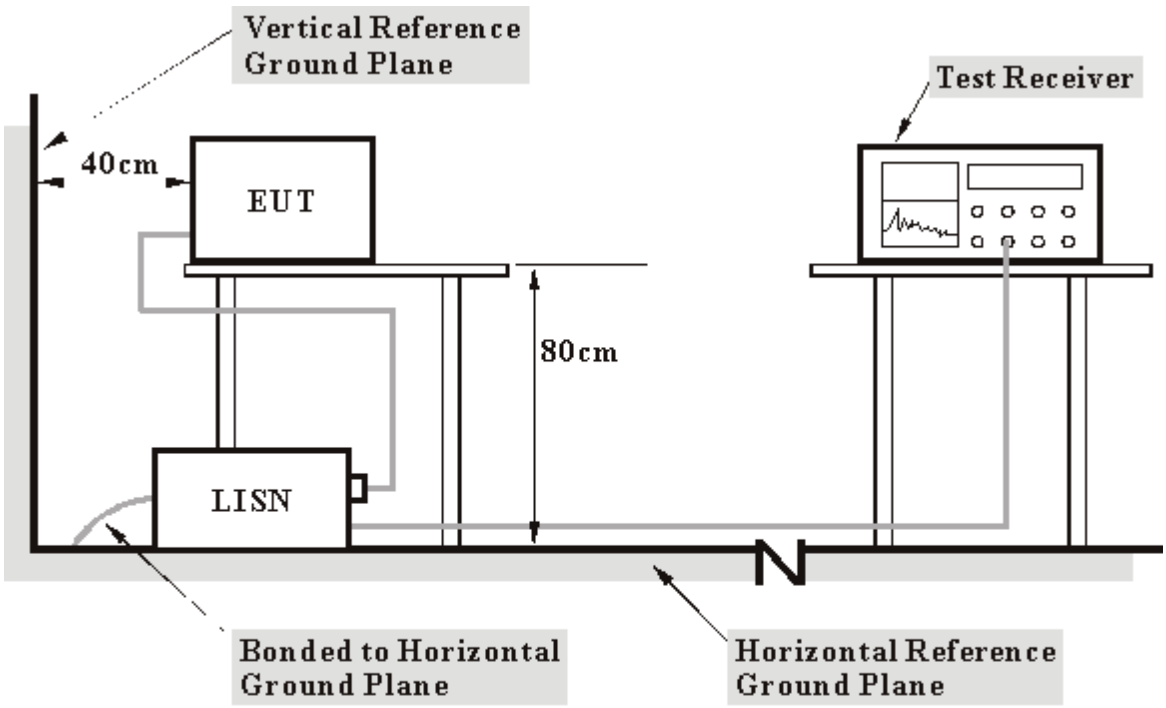
3.7.3 TEST PROCEDURES

a. The EUT/HOST was placed 0.4 meters from the conducting wall of the shielded room with EUT/HOST 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/HOST were checked for maximum conducted interference.

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

3.7.4 TEST SETUP



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

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

3.7.5 EUT OPERATING CONDITIONS

a. Plug the EUT into the support unit 1 (AP) which placed on a testing table.

b. Prepared another computer system to act as a communication partner and placed it outside of testing area.

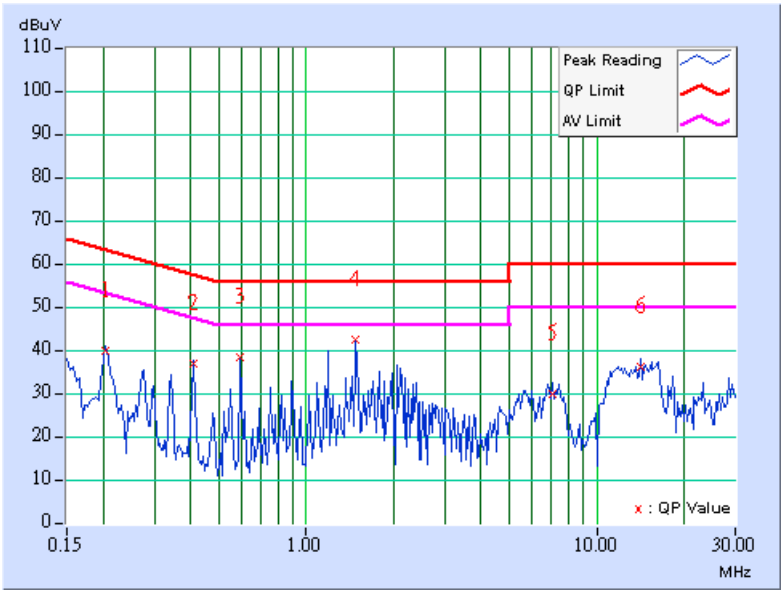
c. The communication partner run “ART25B19” test program to enable EUT under transmission/receiving condition continuously at specific channel frequency via UTP cable and wireless.

3.7.6 TEST RESULTS (MODE 1)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	38.98	-	39.13	-	63.42	53.42	-24.29	-
2	0.408	0.17	36.02	-	36.19	-	57.69	47.69	-21.50	-
3	0.595	0.18	37.39	-	37.57	-	56.00	46.00	-18.43	-
4	1.486	0.22	41.82	-	42.04	-	56.00	46.00	-13.96	-
5	7.035	0.60	29.23	-	29.83	-	60.00	50.00	-30.17	-
6	14.215	0.95	35.26	-	36.21	-	60.00	50.00	-23.79	-

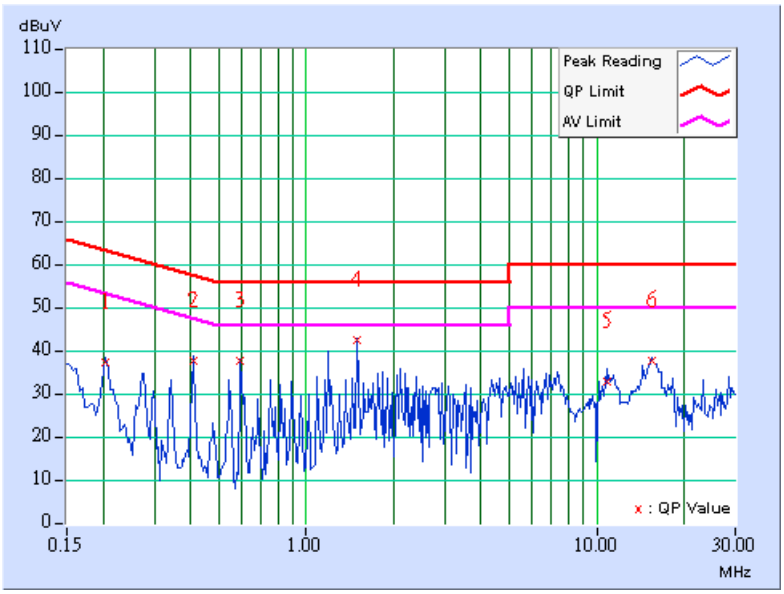
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	36.56	-	36.71	-	63.42	53.42	-26.71	-
2	0.408	0.17	36.96	-	37.13	-	57.69	47.69	-20.56	-
3	0.595	0.18	36.99	-	37.17	-	56.00	46.00	-18.83	-
4	1.494	0.22	41.50	-	41.72	-	56.00	46.00	-14.28	-
5	10.789	0.69	32.04	-	32.73	-	60.00	50.00	-27.27	-
6	15.430	0.91	36.83	-	37.74	-	60.00	50.00	-22.26	-

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.

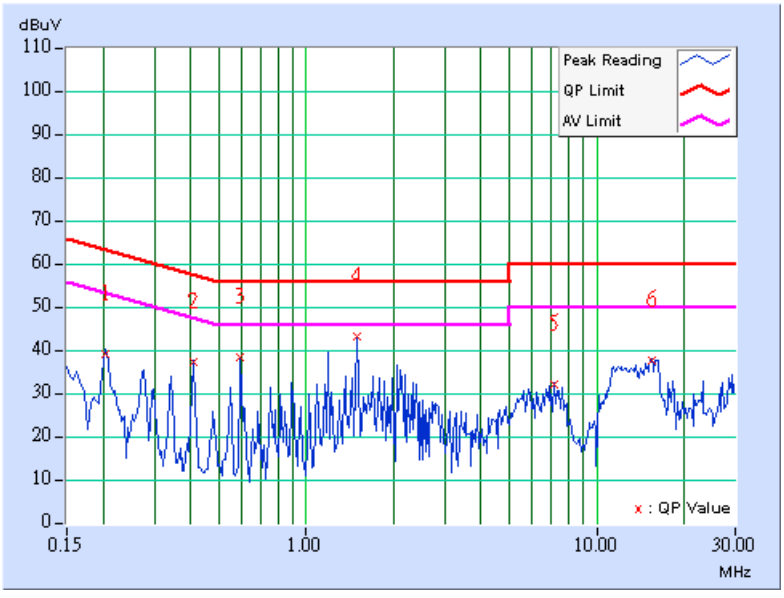


3.7.7 TEST RESULTS (MODE 2)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	38.34	-	38.49	-	63.42	53.42	-24.93	-
2	0.408	0.17	36.26	-	36.43	-	57.69	47.69	-21.26	-
3	0.595	0.18	37.57	-	37.75	-	56.00	46.00	-18.25	-
4	**1.490**	**0.22**	**42.40**	**-**	**42.62**	**-**	**56.00**	**46.00**	**-13.38**	**-**
5	7.105	0.61	31.20	-	31.81	-	60.00	50.00	-28.19	-
6	15.438	1.02	36.79	-	37.81	-	60.00	50.00	-22.19	-

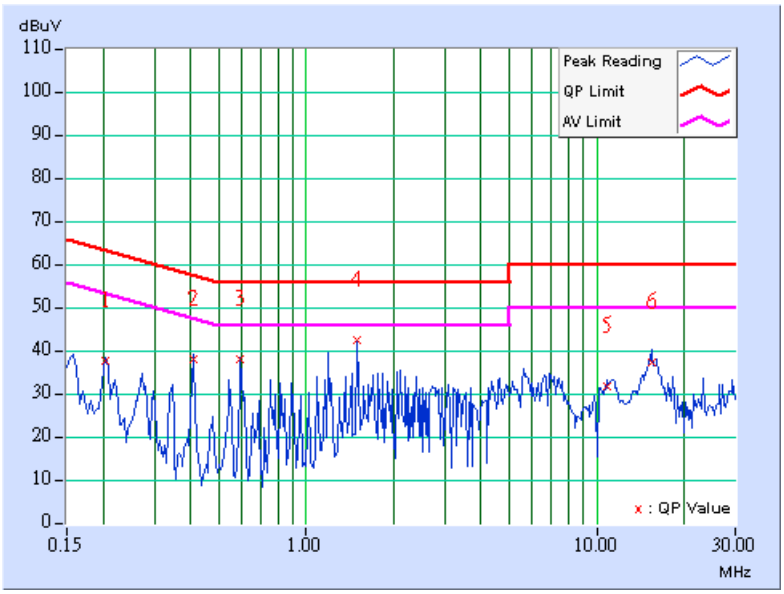
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	36.96	-	37.11	-	63.42	53.42	-26.31	-
2	0.408	0.17	37.34	-	37.51	-	57.69	47.69	-20.18	-
3	0.595	0.18	37.14	-	37.32	-	56.00	46.00	-18.68	-
4	1.494	0.22	41.54	-	41.76	-	56.00	46.00	-14.24	-
5	10.789	0.69	30.99	-	31.68	-	60.00	50.00	-28.32	-
6	15.430	0.91	36.33	-	37.24	-	60.00	50.00	-22.76	-

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.

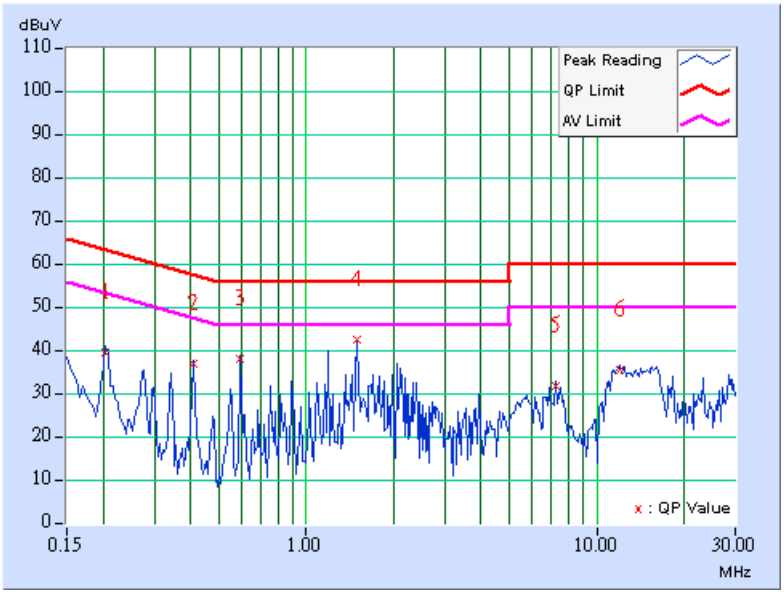


3.7.8 TEST RESULTS (MODE 3)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	38.74	-	38.89	-	63.42	53.42	-24.53	-
2	0.408	0.17	36.10	-	36.27	-	57.69	47.69	-21.42	-
3	0.595	0.18	37.45	-	37.63	-	56.00	46.00	-18.37	-
4	1.490	0.22	41.76	-	41.98	-	56.00	46.00	-14.02	-
5	7.242	0.61	30.87	-	31.48	-	60.00	50.00	-28.52	-
6	11.957	0.84	34.83	-	35.67	-	60.00	50.00	-24.33	-

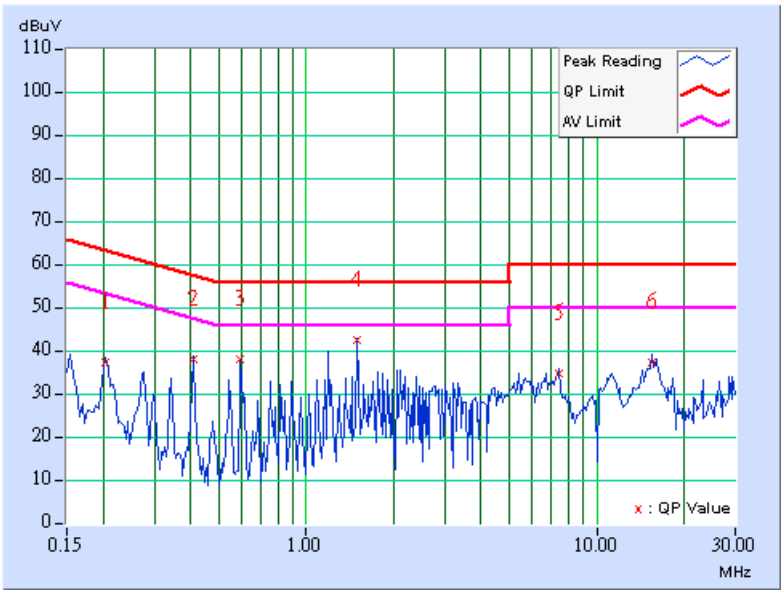
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	36.42	-	36.57	-	63.42	53.42	-26.85	-
2	0.408	0.17	37.32	-	37.49	-	57.69	47.69	-20.20	-
3	0.595	0.18	37.13	-	37.31	-	56.00	46.00	-18.69	-
4	1.494	0.22	41.50	-	41.72	-	56.00	46.00	-14.28	-
5	7.371	0.56	33.78	-	34.34	-	60.00	50.00	-25.66	-
6	15.430	0.91	36.59	-	37.50	-	60.00	50.00	-22.50	-

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.

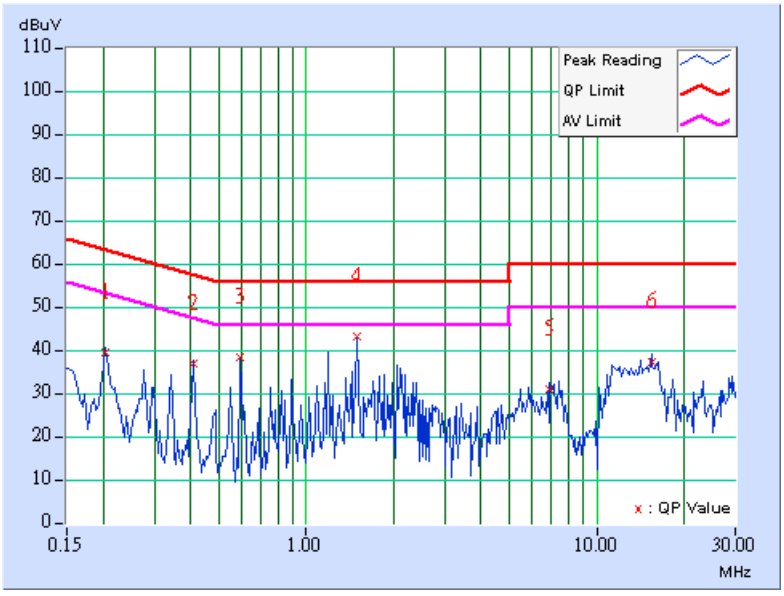


3.7.9 TEST RESULTS (MODE 4)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	38.52	-	38.67	-	63.42	53.42	-24.75	-
2	0.408	0.17	36.14	-	36.31	-	57.69	47.69	-21.38	-
3	0.595	0.18	37.55	-	37.73	-	56.00	46.00	-18.27	-
4	1.490	0.22	42.14	-	42.36	-	56.00	46.00	-13.64	-
5	6.902	0.60	30.06	-	30.66	-	60.00	50.00	-29.34	-
6	15.438	1.02	36.27	-	37.29	-	60.00	50.00	-22.71	-

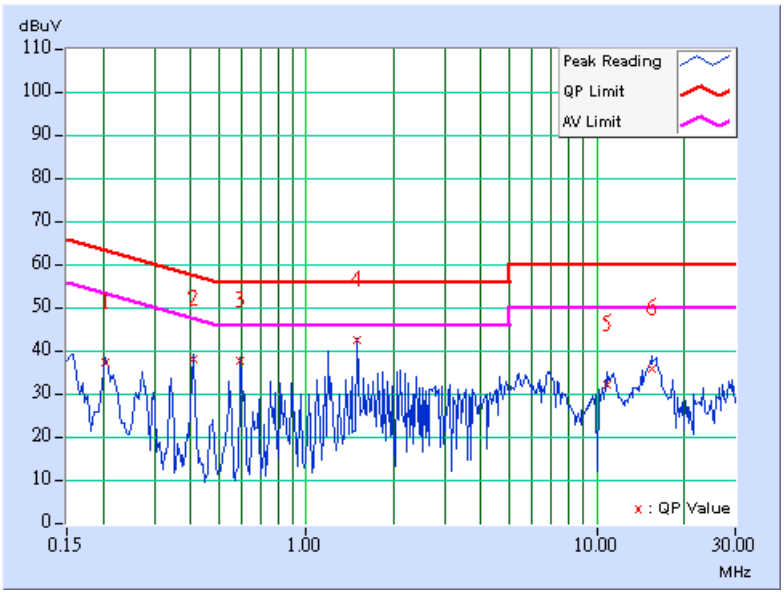
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.15	36.38	-	36.53	-	63.42	53.42	-26.89	-
2	0.408	0.17	37.24	-	37.41	-	57.69	47.69	-20.28	-
3	0.595	0.18	36.97	-	37.15	-	56.00	46.00	-18.85	-
4	1.494	0.22	41.58	-	41.80	-	56.00	46.00	-14.20	-
5	10.789	0.69	31.22	-	31.91	-	60.00	50.00	-28.09	-
6	15.434	0.91	35.19	-	36.10	-	60.00	50.00	-23.90	-

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.



3.8 RADIATED EMISSION MEASUREMENT

3.8.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

Frequencies (MHz)	Field strength (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.

3.8.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	Jun. 29, 2005
HP Pre_Amplifier	8449B	3008A01922	Oct. 13, 2005
ROHDE & SCHWARZ Test Receiver	ESCS30	100287	Dec. 08, 2005
CHASE Broadband Antenna	VULB9168	138	Dec. 21, 2005
Schwarzbeck Horn_Antenna	BBHA9120	D124	Jun. 16, 2005
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 30, 2006
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 26, 2006
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 26, 2006
RF Switches (ARNITSU)	CS-201	1565157	Jul. 15, 2005
RF CABLE (Chaintek) 1GHz-20GHz	SF102	22054-2	Nov. 15. 2005
RF Cable(RICHTEC)	9913-30M	STCCAB-30M-1GHz-021	Jul. 15, 2005
Software	ADT_Radiated_V 5.14	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA
CHANCE MOST Turn Table	TT-100	0203	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Periodic Antenna)and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in ADT Open Site No. C.
4. The FCC Site Registration No. is 656396.
5. The VCCI Site Registration No. is R-1626.
6. The CANADA Site Registration No. is IC 4824-3.
7. The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4.

Measurement	Value
Radiated emissions (30MHz-1GHz)	2.98 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~20GHz)	1.88 dB

3.8.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

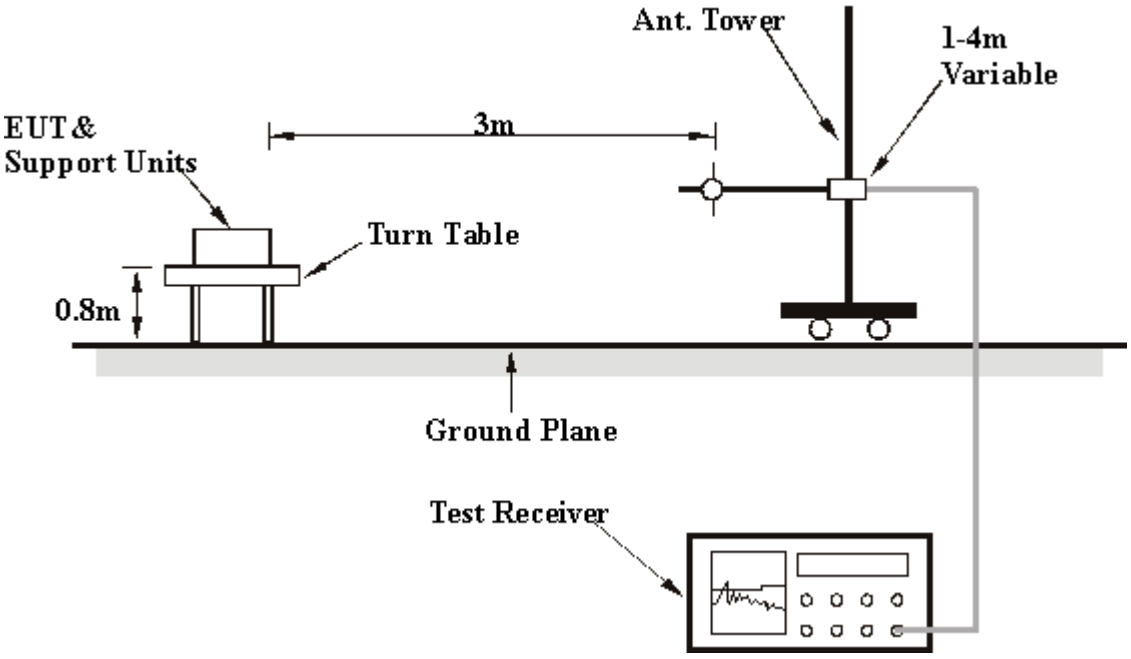
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

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

3.8.4 TEST SETUP



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

3.8.5 EUT OPERATING CONDITIONS

Same as 4.1.5.

3.8.6 TEST RESULTS (MODE 1)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 977 hPa	**TESTED BY**	Tony Chen

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	125.00	20.30 QP	43.50	-23.20	1.99 H	17	8.50	11.90
2	250.00	38.60 QP	46.00	-7.40	1.07 H	326	25.30	13.30
3	375.00	29.70 QP	46.00	-16.30	1.12 H	177	12.10	17.60
4	500.00	31.10 QP	46.00	-14.90	1.36 H	65	10.30	20.90
5	625.00	25.90 QP	46.00	-20.10	1.08 H	233	2.10	23.80
6	832.00	29.90 QP	46.00	-16.10	1.05 H	190	2.70	27.20
7	896.00	28.00 QP	46.00	-18.00	1.12 H	100	0.10	27.90

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	125.00	25.10 QP	43.50	-18.40	1.00 V	272	13.20	11.90
2	250.00	30.20 QP	46.00	-15.80	1.00 V	197	16.90	13.30
3	375.00	25.90 QP	46.00	-20.10	1.36 V	13	8.30	17.60
4	500.00	29.10 QP	46.00	-16.90	1.56 V	267	8.30	20.90
5	625.00	27.30 QP	46.00	-18.70	1.33 V	48	3.60	23.80
6	832.00	31.00 QP	46.00	-15.00	1.02 V	345	3.80	27.20
7	896.00	30.30 QP	46.00	-15.70	1.00 V	304	2.50	27.90

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.

3.8.7 TEST RESULTS (MODE 2)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 977 hPa	**TESTED BY**	Tony Chen

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	160.00	20.50 QP	43.50	-23.00	1.73 H	21	6.70	13.80
2	249.99	38.20 QP	46.00	-7.80	1.24 H	316	24.90	13.30
3	320.00	26.90 QP	46.00	-19.10	1.04 H	279	10.40	16.50
4	375.00	29.50 QP	46.00	-16.50	1.03 H	142	11.90	17.60
5	500.00	29.60 QP	46.00	-16.40	1.38 H	71	8.70	20.90
6	768.00	28.80 QP	46.00	-17.20	1.18 H	172	2.30	26.50
7	832.00	30.90 QP	46.00	-15.10	1.15 H	166	3.70	27.20
8	896.00	28.80 QP	46.00	-17.20	1.15 H	158	1.00	27.90

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	75.00	24.80 QP	40.00	-15.20	1.96 V	136	13.70	11.10
2	200.00	24.30 QP	43.50	-19.20	1.33 V	148	13.20	11.20
3	249.99	30.10 QP	46.00	-15.90	1.79 V	213	16.80	13.30
4	448.00	20.00 QP	46.00	-26.00	1.16 V	253	0.40	19.60
5	500.00	30.00 QP	46.00	-16.00	1.96 V	334	9.10	20.90
6	704.00	25.90 QP	46.00	-20.10	1.00 V	13	0.90	25.00
7	832.00	28.20 QP	46.00	-17.80	1.00 V	48	1.10	27.20
8	959.99	29.20 QP	46.00	-16.80	1.00 V	272	0.30	28.90

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.

3.8.8 TEST RESULTS (MODE 3)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 977 hPa	**TESTED BY**	Tony Chen

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	125.00	23.80 QP	43.50	-19.70	1.99 H	24	11.90	11.90
2	250.00	39.80 QP	46.00	-6.20	1.17 H	308	26.50	13.30
3	375.00	29.10 QP	46.00	-16.90	1.24 H	298	11.50	17.60
4	500.00	29.40 QP	46.00	-16.60	1.40 H	86	8.50	20.90
5	625.00	25.40 QP	46.00	-20.60	1.02 H	52	1.60	23.80
6	832.00	33.20 QP	46.00	-12.80	1.08 H	138	6.00	27.20
7	896.00	30.40 QP	46.00	-15.60	1.17 H	328	2.50	27.90

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	125.00	25.20 QP	43.50	-18.30	1.00 V	210	13.30	11.90
2	250.00	31.40 QP	46.00	-14.60	1.17 V	49	18.10	13.30
3	375.00	25.80 QP	46.00	-20.20	1.18 V	1	8.20	17.60
4	500.00	30.20 QP	46.00	-15.80	1.64 V	277	9.30	20.90
5	625.00	27.30 QP	46.00	-18.70	1.20 V	342	3.60	23.80
6	832.00	30.80 QP	46.00	-15.20	1.00 V	191	3.60	27.20
7	896.00	30.50 QP	46.00	-15.50	1.01 V	37	2.60	27.90

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.

3.8.9 TEST RESULTS (MODE 4)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 55%RH, 977 hPa	**TESTED BY**	Tony Chen

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	125.00	22.50 QP	43.50	-21.00	2.09 H	345	10.60	11.90
2	250.00	37.60 QP	46.00	-8.40	1.10 H	31	24.30	13.30
3	375.00	26.90 QP	46.00	-19.10	1.25 H	209	9.30	17.60
4	500.00	30.50 QP	46.00	-15.50	1.60 H	56	9.60	20.90
5	625.00	26.90 QP	46.00	-19.10	1.12 H	77	3.20	23.80
6	832.00	32.10 QP	46.00	-13.90	1.09 H	266	5.00	27.20
7	896.00	30.40 QP	46.00	-15.60	1.24 H	10	2.60	27.90

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	125.00	24.90 QP	43.50	-18.60	1.00 V	140	13.00	11.90
2	250.00	31.10 QP	46.00	-14.90	1.23 V	7	17.80	13.30
3	375.00	25.80 QP	46.00	-20.20	1.12 V	25	8.20	17.60
4	500.00	29.60 QP	46.00	-16.40	1.73 V	285	8.80	20.90
5	625.00	27.00 QP	46.00	-19.00	1.52 V	283	3.20	23.80
6	832.00	30.90 QP	46.00	-15.10	1.08 V	308	3.70	27.20
7	896.00	30.10 QP	46.00	-15.90	1.00 V	262	2.30	27.90

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.

3.8.10 TEST RESULTS (MODE 1 – DSSS)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

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	2368.00	56.40 PK	74.00	-17.60	1.64 H	128	25.90	30.50
1	2368.00	49.40 AV	54.00	-4.60	1.64 H	128	18.90	30.50
2	2390.00	48.60 PK	74.00	-25.40	1.55 H	242	14.90	33.70
2	2390.00	40.80 AV	54.00	-13.20	1.55 H	242	7.10	33.70
3	*2412.00	99.40 PK			1.55 H	242	69.60	29.80
3	*2412.00	91.90 AV			1.55 H	242	62.10	29.80
4	4824.00	48.10 PK	74.00	-25.90	1.35 H	175	13.00	35.10
4	4824.00	37.20 AV	54.00	-16.80	1.35 H	175	2.10	35.10
5	5578.00	49.90 PK	74.00	-24.10	2.02 H	350	14.00	35.90
5	5578.00	42.70 AV	54.00	-11.30	2.02 H	350	6.80	35.90
6	6336.00	53.40 PK	74.00	-20.60	2.01 H	100	15.90	37.50
6	6336.00	51.20 AV	54.00	-2.80	2.01 H	100	13.70	37.50
7	7236.00	52.50 PK	74.00	-21.50	1.35 H	48	12.00	40.50
7	7236.00	43.30 AV	54.00	-10.70	1.35 H	48	2.80	40.50

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	2368.00	59.60 PK	74.00	-14.40	1.58 V	164	29.10	30.50
1	2368.00	50.30 AV	54.00	-3.70	1.58 V	164	19.80	30.50
2	2390.00	60.80 PK	74.00	-13.20	1.24 V	11	27.10	33.70
2	2390.00	53.60 AV	54.00	-0.40	1.24 V	11	19.90	33.70
3	*2412.00	111.40 PK			1.24 V	11	81.60	29.80
3	*2412.00	104.70 AV			1.24 V	11	74.90	29.80
4	4824.00	50.80 PK	74.00	-23.20	1.49 V	250	15.70	35.10
4	4824.00	39.90 AV	54.00	-14.10	1.49 V	250	4.80	35.10
5	5578.00	51.40 PK	74.00	-22.60	1.00 V	328	15.50	35.90
5	5578.00	44.40 AV	54.00	-9.60	1.00 V	328	8.50	35.90
6	6336.00	56.70 PK	74.00	-17.30	1.00 V	348	19.20	37.50
6	6336.00	55.20 AV	54.00	1.20	1.00 V	348	17.70	37.50
7	7236.00	54.30 PK	74.00	-19.70	1.25 V	231	13.80	40.50
7	7236.00	45.20 AV	54.00	-8.80	1.25 V	231	4.70	40.50

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.
5. The limit value is defined as per 15.247
6.“ * “ : Fundamental frequency

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 6	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	**TESTED BY**	Rex Huang

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	2368.00	42.30 PK	74.00	-31.70	1.12 H	264	11.80	30.50
1	2368.00	34.60 AV	54.00	-19.40	1.12 H	264	4.10	30.50
2	*2437.00	102.90 PK			1.53 H	243	73.00	29.90
2	*2437.00	95.60 AV			1.53 H	243	65.70	29.90
3	4874.00	47.90 PK	74.00	-26.10	1.37 H	184	12.60	35.30
3	4874.00	37.20 AV	54.00	-16.80	1.37 H	184	1.90	35.30
4	5606.00	50.50 PK	74.00	-23.50	2.16 H	325	14.50	36.00
4	5606.00	43.20 AV	54.00	-10.80	2.16 H	325	7.20	36.00
5	6336.00	54.20 PK	82.90	-28.70	1.92 H	113	16.70	37.50
5	6336.00	51.50 AV	75.60	--24.10	1.92 H	113	14.00	37.50
6	7311.00	52.50 PK	74.00	-21.50	1.33 H	31	11.80	40.70
6	7311.00	42.70 AV	54.00	-11.30	1.33 H	31	2.00	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.20 PK	74.00	-17.80	1.64 V	118	25.70	30.50
1	2368.00	47.50 AV	54.00	-6.50	1.64 V	118	17.00	30.50
2	*2437.00	115.70 PK			1.23 V	10	85.80	29.90
2	*2437.00	108.50 AV			1.23 V	10	78.60	29.90
3	4874.00	49.80 PK	74.00	-24.20	1.42 V	225	14.50	35.30
3	4874.00	39.10 AV	54.00	-14.90	1.42 V	225	3.80	35.30
4	5606.00	50.90 PK	74.00	-23.10	1.05 V	305	14.90	36.00
4	5606.00	43.60 AV	54.00	-10.40	1.05 V	305	7.60	36.00
5	6336.00	56.50 PK	95.70	-39.20	1.01 V	320	19.00	37.50
5	6336.00	55.10 AV	88.50	-39.20	1.01 V	320	17.60	37.50
6	7311.00	54.10 PK	74.00	-33.40	1.32 V	212	13.40	40.70
6	7311.00	44.50 AV	54.00	-9.50	1.32 V	212	3.80	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.70 PK	74.00	-31.30	1.00 H	248	12.20	30.50
1	2368.00	34.80 AV	54.00	-19.20	1.00 H	248	4.30	30.50
2	*2462.00	100.10 PK			1.54 H	245	70.10	30.00
2	*2462.00	92.30 AV			1.54 H	245	62.30	30.00
3	2483.50	49.90 PK	74.00	-24.10	1.54 H	245	19.80	30.10
3	2483.50	39.20 AV	54.00	-14.80	1.54 H	245	9.10	30.10
4	2496.00	51.10 PK	74.00	-22.90	1.54 H	245	18.30	32.80
4	2496.00	40.20 AV	54.00	-13.80	1.54 H	245	7.40	32.80
5	4924.00	49.30 PK	74.00	-24.70	1.39 H	176	13.70	35.50
5	4924.00	37.80 AV	54.00	-16.20	1.39 H	176	2.20	35.50
6	5632.00	51.10 PK	74.00	-22.90	2.12 H	336	15.00	36.10
6	5632.00	44.40 AV	54.00	-9.60	2.12 H	336	8.30	36.10
7	6336.00	54.80 PK	80.10	-25.30	2.21 H	108	17.30	37.50
7	6336.00	52.20 AV	72.30	-20.10	2.21 H	108	14.70	37.50
8	7386.00	52.60 PK	74.00	-21.40	1.41 H	59	11.80	40.80
8	7386.00	43.30 AV	54.00	-10.70	1.41 H	59	2.50	40.80

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	2368.00	54.70 PK	74.00	-19.30	1.61 V	126	24.20	30.50
1	2368.00	48.10 AV	54.00	-5.90	1.61 V	126	17.60	30.50
2	*2462.00	112.50 PK			1.24 V	13	82.50	30.00
2	*2462.00	105.00 AV			1.24 V	13	75.00	30.00
3	2483.50	62.30 PK	74.00	-11.70	1.24 V	13	32.20	30.10
3	2483.50	51.90 AV	54.00	-2.10	1.24 V	13	21.80	30.10
4	2496.00	63.80 PK	74.00	-10.20	1.24 V	13	31.00	32.80
4	2496.00	52.90 AV	54.00	-1.10	1.24 V	13	20.10	32.80
5	4924.00	51.70 PK	74.00	-22.30	1.52 V	252	16.10	35.50
5	4924.00	40.40 AV	54.00	-13.60	1.52 V	252	4.80	35.50
6	5632.00	52.20 PK	74.00	-21.80	1.00 V	315	16.10	36.10
6	5632.00	45.10 AV	54.00	-8.90	1.00 V	315	9.00	36.10
7	6336.00	58.20 PK	92.50	-34.30	1.02 V	335	20.70	37.50
7	6336.00	56.50 AV	85.00	-28.50	1.02 V	335	19.00	37.50
8	7386.00	55.10 PK	74.00	-18.90	1.27 V	228	14.30	40.80
8	7386.00	46.00 AV	54.00	-8.00	1.27 V	228	5.20	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.11 TEST RESULTS (MODE 2 – DSSS)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	**TESTED BY**	Rex Huang

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	2368.00	42.60 PK	74.00	-31.40	1.20 H	24	12.10	30.50
1	2368.00	34.30 AV	54.00	-19.70	1.20 H	24	3.80	30.50
2	2390.00	38.90 PK	74.00	-35.10	1.08 H	356	5.20	33.70
2	2390.00	31.90 AV	54.00	-22.10	1.08 H	356	-1.80	33.70
3	*2412.00	87.80 PK			1.08 H	356	58.00	29.80
3	*2412.00	80.80 AV			1.08 H	356	51.00	29.80
4	4824.00	42.60 PK	74.00	-31.40	1.48 H	23	7.50	35.10
4	4824.00	31.20 AV	54.00	-22.80	1.48 H	23	-3.90	35.10
5	5578.00	44.00 PK	74.00	-30.00	1.36 H	325	8.10	35.90
5	5578.00	34.50 AV	54.00	-19.50	1.36 H	325	-1.40	35.90
6	6336.00	58.50 PK	67.80	-9.30	1.43 H	31	21.00	37.50
6	6336.00	57.30 AV	60.80	-3.50	1.43 H	31	19.80	37.50
7	7236.00	48.00 PK	74.00	-26.00	1.72 H	354	7.50	40.50
7	7236.00	36.50 AV	54.00	-17.50	1.72 H	354	-4.00	40.50

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	2368.00	58.80 PK	74.00	-15.20	1.00 V	6	28.30	30.50
1	2368.00	51.00 AV	54.00	-3.00	1.00 V	6	20.50	30.50
2	2390.00	60.20 PK	74.00	-13.80	1.23 V	3	26.50	33.70
2	2390.00	52.80 AV	54.00	-1.20	1.23 V	3	19.10	33.70
3	*2412.00	109.10 PK			1.23 V	3	79.30	29.80
3	*2412.00	101.70 AV			1.23 V	3	71.90	29.80
4	4824.00	43.60 PK	74.00	-30.40	1.00 V	311	8.50	35.10
4	4824.00	31.90 AV	54.00	-22.10	1.00 V	311	-3.20	35.10
5	5578.00	45.60 PK	74.00	-28.40	1.00 V	36	9.70	35.90
5	5578.00	35.70 AV	54.00	-18.30	1.00 V	36	-0.20	35.90
6	6336.00	62.30 PK	89.10	-26.80	1.00 V	1	24.80	37.50
6	6336.00	61.30 AV	81.70	-20.40	1.00 V	1	23.80	37.50
7	7236.00	49.20 PK	74.00	-24.80	1.00 V	27	8.70	40.50
7	7236.00	37.30 AV	54.00	-16.70	1.00 V	27	-3.20	40.50

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.
5. The limit value is defined as per 15.247
6." * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	43.30 PK	74.00	-30.70	1.21 H	24	12.80	30.50
1	2368.00	35.60 AV	54.00	-18.40	1.21 H	24	5.10	30.50
2	*2437.00	98.10 PK			1.48 H	344	68.20	29.90
2	*2437.00	91.20 AV			1.48 H	344	61.30	29.90
3	4874.00	50.50 PK	74.00	-23.50	1.41 H	346	15.20	35.30
3	4874.00	39.70 AV	54.00	-14.30	1.41 H	346	4.40	35.30
4	5606.00	48.80 PK	74.00	-25.20	1.38 H	322	12.80	36.00
4	5606.00	40.70 AV	54.00	-13.30	1.38 H	322	4.70	36.00
5	6336.00	58.60 PK	78.10	-19.50	1.40 H	32	21.10	37.50
5	6336.00	57.50 AV	71.20	-13.70	1.40 H	32	20.00	37.50
6	7311.00	52.40 PK	74.00	-21.60	1.67 H	359	11.70	40.70
6	7311.00	43.50 AV	54.00	-10.50	1.67 H	359	2.80	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	61.70 PK	74.00	-12.30	1.00 V	7	31.20	30.50
1	2368.00	52.90 AV	54.00	-1.10	1.00 V	7	22.40	30.50
2	*2437.00	118.60 PK			1.21 V	3	88.70	29.90
2	*2437.00	110.70 AV			1.21 V	3	80.80	29.90
3	4874.00	50.80 PK	74.00	-23.20	1.00 V	312	15.50	35.30
3	4874.00	39.90 AV	54.00	-14.10	1.00 V	312	4.60	35.30
4	5606.00	53.10 PK	74.00	-20.90	1.02 V	46	17.10	36.00
4	5606.00	44.20 AV	54.00	-9.80	1.02 V	46	8.20	36.00
5	6336.00	62.40 PK	98.60	-36.20	1.00 V	54	24.90	37.50
5	6336.00	61.50 AV	90.70	-29.20	1.00 V	54	24.00	37.50
6	7311.00	55.50 PK	74.00	-18.50	1.00 V	29	14.80	40.70
6	7311.00	47.10 AV	54.00	-6.90	1.00 V	29	6.40	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.80 PK	74.00	-31.20	1.20 H	25	12.30	30.50
1	2368.00	34.40 AV	54.00	-19.60	1.20 H	25	3.90	30.50
2	*2462.00	88.30 PK			1.46 H	345	58.30	30.00
2	*2462.00	81.50 AV			1.46 H	345	51.50	30.00
3	2483.50	40.20 PK	74.00	-33.80	1.46 H	345	10.10	30.10
3	2483.50	33.00 AV	54.00	-21.00	1.46 H	345	2.90	30.10
4	2496.00	41.90 PK	74.00	-32.10	1.46 H	345	9.10	32.80
4	2496.00	33.30 AV	54.00	-20.70	1.46 H	345	0.50	32.80
5	4924.00	43.10 PK	74.00	-30.90	1.45 H	17	7.50	35.50
5	4924.00	31.50 AV	54.00	-22.50	1.45 H	17	-4.10	35.50
6	5632.00	44.60 PK	74.00	-29.40	1.39 H	329	8.50	36.10
6	5632.00	34.90 AV	54.00	-19.10	1.39 H	329	-1.20	36.10
7	6336.00	58.40 PK	68.30	-9.90	1.41 H	30	20.90	37.50
7	6336.00	57.40 AV	61.50	-4.10	1.41 H	30	19.90	37.50
8	7386.00	48.50 PK	74.00	-25.50	1.64 H	353	7.70	40.80
8	7386.00	36.80 AV	54.00	-17.20	1.64 H	353	-4.00	40.80

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	2368.00	58.60 PK	74.00	-15.40	1.00 V	4	28.10	30.50
1	2368.00	51.50 AV	54.00	-2.50	1.00 V	4	21.00	30.50
2	2462.00	108.70 PK			1.19 V	6	78.70	30.00
2	2462.00	101.60 AV			1.19 V	6	71.60	30.00
3	2483.50	60.60 PK	74.00	-13.40	1.19 V	6	30.50	30.10
3	2483.50	53.10 AV	54.00	-0.90	1.19 V	6	23.00	30.10
4	2496.00	62.30 PK	74.00	-11.70	1.19 V	6	29.50	32.80
4	2496.00	53.40 AV	54.00	-0.60	1.19 V	6	20.60	32.80
5	4924.00	43.70 PK	74.00	-30.30	1.00 V	303	8.10	35.50
5	4924.00	32.10 AV	54.00	-21.90	1.00 V	303	-3.50	35.50
6	5632.00	46.10 PK	74.00	-27.90	1.01 V	45	10.00	36.10
6	5632.00	36.30 AV	54.00	-17.70	1.01 V	45	0.20	36.10
7	6336.00	62.50 PK	88.70	-26.20	1.00 V	54	25.00	37.50
7	6336.00	61.40 AV	81.60	-20.20	1.00 V	54	23.90	37.50
8	7386.00	49.30 PK	74.00	-24.70	1.03 V	32	8.50	40.80
8	7386.00	37.90 AV	54.00	-16.10	1.03 V	32	-2.90	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.12 TEST RESULTS (MODE 3 – DSSS)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	**TESTED BY**	Rex Huang

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	2368.00	52.10 PK	74.00	-21.90	1.24 H	18	21.60	30.50
1	2368.00	43.00 AV	54.00	-11.00	1.24 H	18	12.50	30.50
2	2390.00	57.30 PK	74.00	-16.70	1.48 H	4	23.60	33.70
2	2390.00	49.60 AV	54.00	-4.40	1.48 H	4	15.90	33.70
3	*2412.00	106.20 PK			1.48 H	4	76.40	29.80
3	*2412.00	99.10 AV			1.48 H	4	69.30	29.80
4	4824.00	45.40 PK	74.00	-28.60	1.37 H	335	10.30	35.10
4	4824.00	34.20 AV	54.00	-19.80	1.37 H	335	-0.90	35.10
5	5578.00	45.20 PK	74.00	-28.80	1.34 H	333	9.30	35.90
5	5578.00	36.10 AV	54.00	-17.90	1.34 H	333	0.20	35.90
6	6336.00	56.20 PK	86.20	-30.00	1.00 H	44	18.70	37.50
6	6336.00	54.50 AV	79.10	-24.60	1.00 H	44	17.00	37.50
7	7236.00	49.50 PK	74.00	-24.50	1.36 H	341	9.00	40.50
7	7236.00	38.10 AV	54.00	-15.90	1.36 H	341	-2.40	40.50

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	2368.00	56.90 PK	74.00	-17.10	1.28 V	332	26.40	30.50
1	2368.00	47.40 AV	54.00	-6.60	1.28 V	332	16.90	30.50
2	2390.00	60.50 PK	74.00	-13.50	1.27 V	33	26.80	33.70
2	2390.00	53.00 AV	54.00	-1.00	1.27 V	33	19.30	33.70
3	*2412.00	109.40 PK			1.27 V	33	79.60	29.80
3	*2412.00	102.50 AV			1.27 V	33	72.70	29.80
4	4824.00	45.70 PK	74.00	-28.30	1.29 V	321	10.60	35.10
4	4824.00	34.80 AV	54.00	-19.20	1.29 V	321	-0.30	35.10
5	5578.00	50.20 PK	74.00	-23.80	1.53 V	97	14.30	35.90
5	5578.00	41.80 AV	54.00	-12.20	1.53 V	97	5.90	35.90
6	6336.00	60.40 PK	89.40	-29.00	1.41 V	96	22.90	37.50
6	6336.00	59.40 AV	82.50	-23.10	1.41 V	96	21.90	37.50
7	7236.00	50.90 PK	74.00	-23.10	1.43 V	23	10.40	40.50
7	7236.00	40.10 AV	54.00	-13.90	1.43 V	23	-0.40	40.50

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.
5. The limit value is defined as per 15.247
6." * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	55.10 PK	74.00	-18.90	1.25 H	19	24.60	30.50
1	2368.00	45.00 AV	54.00	-9.00	1.25 H	19	14.50	30.50
2	*2437.00	108.30 PK			1.48 H	7	78.40	29.90
2	*2437.00	101.10 AV			1.48 H	7	71.20	29.90
3	4824.00	48.10 PK	74.00	-25.90	1.36 H	334	13.00	35.10
3	4824.00	37.40 AV	54.00	-16.60	1.36 H	334	2.30	35.10
4	5606.00	48.20 PK	74.00	-25.80	1.37 H	322	12.20	36.00
4	5606.00	39.40 AV	54.00	-14.60	1.37 H	322	3.40	36.00
5	6336.00	56.10 PK	88.30	-32.20	1.00 H	43	18.60	37.50
5	6336.00	54.20 AV	81.10	-26.90	1.00 H	43	16.70	37.50
6	7311.00	53.60 PK	74.00	-20.40	1.35 H	337	12.90	40.70
6	7311.00	44.40 AV	54.00	-9.60	1.35 H	337	3.70	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.60 PK	74.00	-17.40	1.29 V	333	26.10	30.50
1	2368.00	46.90 AV	54.00	-7.10	1.29 V	333	16.40	30.50
2	*2437.00	111.00 PK			1.27 V	35	81.10	29.90
2	*2437.00	103.90 AV			1.27 V	35	74.00	29.90
3	4874.00	49.80 PK	74.00	-24.20	1.28 V	315	14.50	35.30
3	4874.00	38.30 AV	54.00	-15.70	1.28 V	315	3.00	35.30
4	5606.00	52.50 PK	74.00	-21.50	1.56 V	102	16.50	36.00
4	5606.00	44.60 AV	54.00	-9.40	1.56 V	102	8.60	36.00
5	6336.00	60.10 PK	91.00	-30.90	1.40 V	95	22.60	37.50
5	6336.00	59.20 AV	83.90	-24.70	1.40 V	95	21.70	37.50
6	7311.00	56.20 PK	74.00	-17.80	1.41 V	19	15.50	40.70
6	7311.00	47.70 AV	54.00	-6.30	1.41 V	19	7.00	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	51.50 PK	74.00	-22.50	1.25 H	17	21.00	30.50
1	2368.00	42.70 AV	54.00	-11.30	1.25 H	17	12.20	30.50
2	*2462.00	105.20 PK			1.75 H	6	75.20	30.00
2	*2462.00	98.20 AV			1.75 H	6	68.20	30.00
3	2483.50	54.90 PK	74.00	-19.10	1.75 H	6	24.80	30.10
3	2483.50	49.60 AV	54.00	-4.40	1.75 H	6	19.50	30.10
4	4924.00	46.10 PK	74.00	-27.90	1.43 H	329	10.50	35.50
4	4924.00	34.50 AV	54.00	-19.50	1.43 H	329	-1.10	35.50
5	5632.00	45.60 PK	74.00	-28.40	1.41 H	325	9.50	36.10
5	5632.00	36.40 AV	54.00	-17.60	1.41 H	325	0.30	36.10
6	6336.00	56.20 PK	85.20	-29.00	1.00 H	44	18.70	37.50
6	6336.00	54.40 AV	78.20	-23.80	1.00 H	44	16.90	37.50
7	7386.00	50.10 PK	74.00	-23.90	1.39 H	334	9.30	40.80
7	7386.00	38.60 AV	54.00	-15.40	1.39 H	334	-2.20	40.80

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	2368.00	55.30 PK	74.00	-18.70	1.30 V	334	24.80	30.50
1	2368.00	46.50 AV	54.00	-7.50	1.30 V	334	16.00	30.50
2	2462.00	107.90 PK			1.25 V	35	77.90	30.00
2	2462.00	100.90 AV			1.25 V	35	70.90	30.00
3	2483.50	57.60 PK	74.00	-16.40	1.25 V	35	27.50	30.10
3	2483.50	52.40 AV	54.00	-1.60	1.25 V	35	22.30	30.10
4	4924.00	46.60 PK	74.00	-27.40	1.28 V	317	11.00	35.50
4	4924.00	35.50 AV	54.00	-18.50	1.28 V	317	-0.10	35.50
5	5632.00	50.60 PK	74.00	-23.40	1.54 V	86	14.50	36.10
5	5632.00	41.90 AV	54.00	-12.10	1.54 V	86	5.80	36.10
6	6336.00	60.20 PK	87.90	-27.70	1.40 V	96	22.70	37.50
6	6336.00	59.10 AV	80.90	-21.80	1.40 V	96	21.60	37.50
7	7386.00	51.70 PK	74.00	-22.30	1.45 V	17	10.90	40.80
7	7386.00	40.80 AV	54.00	-13.20	1.45 V	17	0.00	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.13 TEST RESULTS (MODE 4 – DSSS)

EUT	Upgrade Kit - 802.11g	**MODEL**	WL-463
MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	**TESTED BY**	Rex Huang

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	2368.00	52.10 PK	74.00	-21.90	1.22 H	342	21.60	30.50
1	2368.00	44.30 AV	54.00	-9.70	1.22 H	342	13.80	30.50
2	2390.00	52.80 PK	74.00	-21.20	1.12 H	340	19.10	33.70
2	2390.00	45.20 AV	54.00	-8.80	1.12 H	340	11.50	33.70
3	*2412.00	101.70 PK			1.12 H	340	71.90	29.80
3	*2412.00	94.70 AV			1.12 H	340	64.90	29.80
4	4824.00	45.90 PK	74.00	-28.10	1.12 H	314	10.80	35.10
4	4824.00	34.80 AV	54.00	-19.20	1.12 H	314	-0.30	35.10
5	5578.00	45.30 PK	74.00	-28.70	1.46 H	325	9.40	35.90
5	5578.00	36.10 AV	54.00	-17.90	1.46 H	325	0.20	35.90
6	6336.00	56.20 PK	81.70	-25.50	1.26 H	62	18.70	37.50
6	6336.00	54.60 AV	74.70	-20.10	1.26 H	62	17.10	37.50
7	7236.00	48.30 PK	74.00	-25.70	1.11 H	320	7.80	40.50
7	7236.00	37.60 AV	54.00	-16.40	1.11 H	320	-2.90	40.50

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	2368.00	59.40 PK	74.00	-14.60	1.23 V	10	28.90	30.50
1	2368.00	50.30 AV	54.00	-3.70	1.23 V	10	19.80	30.50
2	2390.00	60.80 PK	74.00	-13.20	1.25 V	28	27.10	33.70
2	2390.00	52.70 AV	54.00	-1.30	1.25 V	28	19.00	33.70
3	2412.00	109.70 PK			1.25 V	28	79.90	29.80
3	2412.00	102.20 AV			1.25 V	28	72.40	29.80
4	4824.00	46.30 PK	74.00	-27.70	1.09 V	315	11.20	35.10
4	4824.00	35.10 AV	54.00	-18.90	1.09 V	315	0.00	35.10
5	5578.00	49.20 PK	74.00	-24.80	1.23 V	60	13.30	35.90
5	5578.00	41.20 AV	54.00	-12.80	1.23 V	60	5.30	35.90
6	6336.00	61.60 PK	89.70	-28.10	1.45 V	28	24.10	37.50
6	6336.00	60.70 AV	82.20	-21.50	1.45 V	28	23.20	37.50
7	7236.00	49.40 PK	74.00	-24.60	1.10 V	18	8.90	40.50
7	7236.00	38.80 AV	54.00	-15.20	1.10 V	18	-1.70	40.50

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.
5. The limit value is defined as per 15.247
6." * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	51.40 PK	74.00	-22.60	1.23 H	344	20.90	30.50
1	2368.00	43.70 AV	54.00	-10.30	1.23 H	344	13.20	30.50
2	*2437.00	103.50 PK			1.11 H	348	73.60	29.90
2	*2437.00	96.50 AV			1.11 H	348	66.60	29.90
3	4874.00	50.00 PK	74.00	-24.00	1.15 H	318	14.70	35.30
3	4874.00	39.40 AV	54.00	-14.60	1.15 H	318	4.10	35.30
4	5606.00	47.00 PK	74.00	-27.00	1.52 H	337	11.00	36.00
4	5606.00	38.20 AV	54.00	-15.80	1.52 H	337	2.20	36.00
5	6336.00	56.10 PK	83.50	-27.40	1.27 H	63	18.60	37.50
5	6336.00	54.40 AV	76.50	-22.10	1.27 H	63	16.90	37.50
6	7311.00	51.30 PK	74.00	-22.70	1.13 H	326	10.60	40.70
6	7311.00	42.30 AV	54.00	-11.70	1.13 H	326	1.60	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	59.60 PK	74.00	-14.40	1.23 V	9	29.10	30.50
1	2368.00	50.40 AV	54.00	-3.60	1.23 V	9	19.90	30.50
2	*2437.00	111.20 PK			1.22 V	29	81.30	29.90
2	*2437.00	103.70 AV			1.22 V	29	73.80	29.90
3	4874.00	50.70 PK	74.00	-23.30	1.08 V	318	15.40	35.30
3	4874.00	39.70 AV	54.00	-14.30	1.08 V	318	4.40	35.30
4	5606.00	51.00 PK	74.00	-23.00	1.24 V	57	15.00	36.00
4	5606.00	43.20 AV	54.00	-10.80	1.24 V	57	7.20	36.00
5	6336.00	61.70 PK	91.20	-29.50	1.45 V	29	24.20	37.50
5	6336.00	60.90 AV	83.70	-22.80	1.45 V	29	23.40	37.50
6	7311.00	54.20 PK	74.00	-19.80	1.07 V	12	13.50	40.70
6	7311.00	45.00 AV	54.00	-9.00	1.07 V	12	4.30	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	51.90 PK	74.00	-22.10	1.22 H	343	21.40	30.50
1	2368.00	44.00 AV	54.00	-10.00	1.22 H	343	13.50	30.50
2	*2462.00	100.10 PK			1.13 H	342	70.10	30.00
2	*2462.00	93.30 AV			1.13 H	342	63.30	30.00
3	2483.50	51.40 PK	74.00	-22.60	1.13 H	342	21.30	30.10
3	2483.50	44.60 AV	54.00	-9.40	1.13 H	342	14.50	30.10
4	2496.00	52.20 PK	74.00	-21.80	1.13 H	342	19.40	32.80
4	2496.00	41.00 AV	54.00	-13.00	1.13 H	342	8.20	32.80
5	4924.00	45.10 PK	74.00	-28.90	1.16 H	321	9.50	35.50
5	4924.00	34.40 AV	54.00	-19.60	1.16 H	321	-1.20	35.50
6	5632.00	44.70 PK	74.00	-29.30	1.43 H	14	8.60	36.10
6	5632.00	35.20 AV	54.00	-18.80	1.43 H	14	-0.90	36.10
7	6336.00	56.10 PK	80.10	-24.00	1.26 H	61	18.60	37.50
7	6336.00	54.50 AV	73.30	-18.80	1.26 H	61	17.00	37.50
8	7386.00	48.40 PK	74.00	-25.60	1.17 H	332	7.60	40.80
8	7386.00	36.90 AV	54.00	-17.10	1.17 H	332	-3.90	40.80

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	2368.00	59.60 PK	74.00	-14.40	1.23 V	9	29.10	30.50
1	2368.00	50.50 AV	54.00	-3.50	1.23 V	9	20.00	30.50
2	*2462.00	107.80 PK			1.20 V	30	77.80	30.00
2	*2462.00	100.60 AV			1.20 V	30	70.60	30.00
3	2483.50	59.10 PK	74.00	-14.90	1.20 V	30	29.00	30.10
3	2483.50	51.90 AV	54.00	-2.10	1.20 V	30	21.80	30.10
4	2496.00	59.90 PK	74.00	-14.10	1.20 V	30	27.10	32.80
4	2496.00	48.30 AV	54.00	-5.70	1.20 V	30	15.50	32.80
5	4924.00	45.60 PK	74.00	-28.40	1.12 V	324	10.00	35.50
5	4924.00	34.80 AV	54.00	-19.20	1.12 V	324	-0.80	35.50
6	5632.00	49.10 PK	74.00	-24.90	1.23 V	61	13.00	36.10
6	5632.00	40.30 AV	54.00	-13.70	1.23 V	61	4.20	36.10
7	6336.00	61.50 PK	87.80	-26.30	1.45 V	29	24.00	37.50
7	6336.00	60.60 AV	80.60	-20.00	1.45 V	29	23.10	37.50
8	7386.00	48.80 PK	74.00	-25.20	1.09 V	21	8.00	40.80
8	7386.00	38.50 AV	54.00	-15.50	1.09 V	21	-2.30	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.14 TEST RESULTS (MODE 1 –OFDM)

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 1	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.40 PK	74.00	-31.60	1.00 H	250	11.90	30.50
1	2368.00	33.50 AV	54.00	-20.50	1.00 H	250	3.00	30.50
2	2390.00	49.90 PK	74.00	-24.10	1.53 H	242	16.20	33.70
2	2390.00	38.20 AV	54.00	-15.80	1.53 H	242	4.50	33.70
3	2412.00	89.90 PK			1.53 H	242	60.10	29.80
3	2412.00	81.00 AV			1.53 H	242	51.20	29.80
4	4824.00	42.60 PK	74.00	-31.40	1.23 H	340	7.50	35.10
4	4824.00	31.50 AV	54.00	-22.50	1.23 H	340	-3.60	35.10
5	5578.00	47.30 PK	74.00	-26.70	1.09 H	53	11.40	35.90
5	5578.00	37.40 AV	54.00	-16.60	1.09 H	53	1.50	35.90
6	6336.00	52.30 PK	69.90	-17.60	1.09 H	339	14.80	37.50
6	6336.00	49.00 AV	61.00	-12.00	1.09 H	339	11.50	37.50
7	7236.00	48.40 PK	74.00	-25.60	1.47 H	60	7.90	40.50
7	7236.00	36.90 AV	54.00	-17.10	1.47 H	60	-3.60	40.50

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	2368.00	58.10 PK	74.00	-15.90	1.63 V	30	27.60	30.50
1	2368.00	48.70 AV	54.00	-5.30	1.63 V	30	18.20	30.50
2	2390.00	62.90 PK	74.00	-11.10	1.24 V	11	29.20	33.70
2	2390.00	50.10 AV	54.00	-3.90	1.24 V	11	16.40	33.70
3	*2412.00	102.90 PK			1.24 V	11	73.10	29.80
3	*2412.00	92.90 AV			1.24 V	11	63.10	29.80
4	4824.00	44.20 PK	74.00	-29.80	1.45 V	225	9.10	35.10
4	4824.00	33.60 AV	54.00	-20.40	1.45 V	225	-1.50	35.10
5	5578.00	50.20 PK	74.00	-23.80	1.68 V	334	14.30	35.90
5	5578.00	40.80 AV	54.00	-13.20	1.68 V	334	4.90	35.90
6	6336.00	55.90 PK	82.90	-27.00	1.00 V	351	18.40	37.50
6	6336.00	54.10 AV	72.90	-18.80	1.00 V	351	16.60	37.50
7	7236.00	51.90 PK	74.00	-22.10	1.96 V	230	11.40	40.50
7	7236.00	38.80 AV	54.00	-15.20	1.96 V	230	-1.70	40.50

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.10 PK	74.00	-31.90	1.00 H	247	11.60	30.50
1	2368.00	33.30 AV	54.00	-20.70	1.00 H	247	2.80	30.50
2	*2437.00	99.70 PK			1.52 H	243	69.80	29.90
2	*2437.00	90.30 AV			1.52 H	243	60.40	29.90
3	4874.00	43.50 PK	74.00	-30.50	1.30 H	325	8.20	35.30
3	4874.00	32.60 AV	54.00	-21.40	1.30 H	325	-2.70	35.30
4	5606.00	52.80 PK	74.00	-21.20	1.06 H	42	16.80	36.00
4	5606.00	49.60 AV	54.00	-4.40	1.06 H	42	13.60	36.00
5	6336.00	53.70 PK	79.70	-26.00	1.10 H	336	16.20	37.50
5	6336.00	51.20 AV	70.30	-19.10	1.10 H	336	13.70	37.50
6	7311.00	49.80 PK	74.00	-24.20	1.41 H	74	9.10	40.70
6	7311.00	37.30 AV	54.00	-16.70	1.41 H	74	-3.40	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	54.50 PK	74.00	-19.50	1.00 V	335	24.00	30.50
1	2368.00	46.00 AV	54.00	-8.00	1.00 V	335	15.50	30.50
2	2437.00	112.50 PK			1.22 V	12	82.60	29.90
2	2437.00	103.10 AV			1.22 V	12	73.20	29.90
3	4874.00	45.10 PK	74.00	-28.90	1.52 V	231	9.80	35.30
3	4874.00	34.40 AV	54.00	-19.60	1.52 V	231	-0.90	35.30
4	5606.00	52.10 PK	74.00	-21.90	1.72 V	350	16.10	36.00
4	5606.00	42.80 AV	54.00	-11.20	1.72 V	350	6.80	36.00
5	6336.00	58.20 PK	92.50	-34.30	1.02 V	344	20.70	37.50
5	6336.00	56.10 AV	83.10	-27.00	1.02 V	344	18.60	37.50
6	7311.00	52.50 PK	74.00	-21.50	2.03 V	215	11.80	40.70
6	7311.00	39.20 AV	54.00	-14.80	2.03 V	215	-1.50	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	41.60 PK	74.00	-32.40	1.00 H	247	11.10	30.50
1	2368.00	33.10 AV	54.00	-20.90	1.00 H	247	2.60	30.50
2	2462.00	88.90 PK			1.54 H	244	58.90	30.00
2	2462.00	80.20 AV			1.54 H	244	50.20	30.00
3	2483.50	48.10 PK	74.00	-25.90	1.54 H	244	18.00	30.10
3	2483.50	36.70 AV	54.00	-17.30	1.54 H	244	6.60	30.10
4	2496.00	46.30 PK	74.00	-27.70	1.54 H	244	13.50	32.80
4	2496.00	37.60 AV	54.00	-16.40	1.54 H	244	4.80	32.80
5	4924.00	43.60 PK	74.00	-30.40	1.26 H	327	8.00	35.50
5	4924.00	32.30 AV	54.00	-21.70	1.26 H	327	-3.30	35.50
6	5632.00	52.60 PK	74.00	-21.40	1.07 H	292	16.50	36.10
6	5632.00	49.00 AV	54.00	-5.00	1.07 H	292	12.90	36.10
7	6336.00	53.20 PK	68.90	-15.70	1.04 H	310	15.70	37.50
7	6336.00	50.50 AV	60.20	-9.70	1.04 H	310	13.00	37.50
8	7386.00	49.60 PK	74.00	-24.40	1.32 H	72	8.80	40.80
8	7386.00	38.10 AV	54.00	-15.90	1.32 H	72	-2.70	40.80

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	2368.00	53.00 PK	74.00	-21.00	1.75 V	30	22.50	30.50
1	2368.00	46.80 AV	54.00	-7.20	1.75 V	30	16.30	30.50
2	2462.00	101.70 PK			1.23 V	12	71.70	30.00
2	2462.00	92.00 AV			1.23 V	12	62.00	30.00
3	2483.50	60.90 PK	74.00	-13.10	1.23 V	12	30.80	30.10
3	2483.50	48.50 AV	54.00	-5.50	1.23 V	12	18.40	30.10
4	2496.00	59.10 PK	74.00	-14.90	1.23 V	12	26.30	32.80
4	2496.00	49.40 AV	54.00	-4.60	1.23 V	12	16.60	32.80
5	4924.00	44.40 PK	74.00	-29.60	1.49 V	227	8.80	35.50
5	4924.00	34.00 AV	54.00	-20.00	1.49 V	227	-1.60	35.50
6	5632.00	51.80 PK	74.00	-22.20	1.00 V	348	15.70	36.10
6	5632.00	42.30 AV	54.00	-11.70	1.00 V	348	6.20	36.10
7	6336.00	57.60 PK	81.70	-24.10	1.05 V	342	20.10	37.50
7	6336.00	55.70 AV	72.00	-16.30	1.05 V	342	18.20	37.50
8	7386.00	53.10 PK	74.00	-20.90	2.00 V	219	12.30	40.80
8	7386.00	39.60 AV	54.00	-14.40	2.00 V	219	-1.20	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Turbo Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 70%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.90 PK	74.00	-31.10	1.00 H	251	12.40	30.50
1	2368.00	34.20 AV	54.00	-19.80	1.00 H	251	3.70	30.50
2	2390.00	43.80 PK	74.00	-30.20	1.51 H	244	10.10	33.70
2	2390.00	29.00 AV	54.00	-25.00	1.51 H	244	-4.70	33.70
3	*2437.00	89.90 PK			1.51 H	244	60.00	29.90
3	*2437.00	81.20 AV			1.51 H	244	51.30	29.90
4	2483.50	44.20 PK	74.00	-29.80	1.51 H	244	14.10	30.10
4	2483.50	34.10 AV	54.00	-19.90	1.51 H	244	4.00	30.10
5	2496.00	42.30 PK	74.00	-31.70	1.51 H	244	9.50	32.80
5	2496.00	33.60 AV	54.00	-20.40	1.51 H	244	0.80	32.80
6	4874.00	43.10 PK	74.00	-30.90	1.28 H	332	7.80	35.30
6	4874.00	32.20 AV	54.00	-21.80	1.28 H	332	-3.10	35.30
7	5606.00	49.90 PK	74.00	-24.10	1.08 H	49	13.90	36.00
7	5606.00	46.40 AV	54.00	-7.60	1.08 H	49	10.40	36.00
8	6336.00	52.70 PK	69.90	-17.20	1.11 H	338	15.20	37.50
8	6336.00	50.10 AV	61.20	-11.10	1.11 H	338	12.60	37.50
9	7311.00	48.70 PK	74.00	-25.30	1.45 H	83	8.00	40.70
9	7311.00	36.90 AV	54.00	-17.10	1.45 H	83	-3.80	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.50 PK	74.00	-17.50	1.65 V	31	26.00	30.50
1	2368.00	47.40 AV	54.00	-6.60	1.65 V	31	16.90	30.50
2	2390.00	57.40 PK	74.00	-16.60	1.23 V	13	23.70	33.70
2	2390.00	41.50 AV	54.00	-12.50	1.23 V	13	7.80	33.70
3	*2437.00	103.50 PK			1.23 V	13	73.60	29.90
3	*2437.00	93.70 AV			1.23 V	13	63.80	29.90
4	2483.50	57.80 PK	74.00	-16.20	1.23 V	13	27.70	30.10
4	2483.50	46.60 AV	54.00	-7.40	1.23 V	13	16.50	30.10
5	2496.00	55.90 PK	74.00	-18.10	1.23 V	13	23.10	32.80
5	2496.00	49.10 AV	54.00	-4.90	1.23 V	13	16.30	32.80
6	4874.00	44.70 PK	74.00	-29.30	1.48 V	229	9.40	35.30
6	4874.00	33.00 AV	54.00	-21.00	1.48 V	229	-2.30	35.30
7	5606.00	55.50 PK	74.00	-18.50	1.73 V	345	19.50	36.00
7	5606.00	52.00 AV	54.00	-2.00	1.73 V	345	16.00	36.00
8	6336.00	57.10 PK	83.50	-26.40	1.05 V	342	19.60	37.50
8	6336.00	55.40 AV	73.70	-18.30	1.05 V	342	17.90	37.50
9	7311.00	49.90 PK	74.00	-24.10	1.97 V	231	9.20	40.70
9	7311.00	38.30 AV	54.00	-15.70	1.97 V	231	-2.40	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.15 TEST RESULTS (MODE 2 –OFDM)

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 1	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	43.30 PK	74.00	-30.70	1.20 H	23	12.80	30.50
1	2368.00	33.00 AV	54.00	-21.00	1.20 H	23	2.50	30.50
2	2390.00	42.40 PK	74.00	-31.60	1.09 H	356	8.70	33.70
2	2390.00	30.50 AV	54.00	-23.50	1.09 H	356	-3.20	33.70
3	*2412.00	82.80 PK			1.09 H	356	53.00	29.80
3	*2412.00	73.60 AV			1.09 H	356	43.80	29.80
4	4824.00	42.40 PK	74.00	-31.60	1.46 H	29	7.30	35.10
4	4824.00	30.60 AV	54.00	-23.40	1.46 H	29	-4.50	35.10
5	5578.00	43.70 PK	74.00	-30.30	1.37 H	328	7.80	35.90
5	5578.00	32.40 AV	54.00	-21.60	1.37 H	328	-3.50	35.90
6	6336.00	57.90 PK	62.80	-10.30	1.41 H	32	20.40	37.50
6	6336.00	56.30 AV	53.60	-2.70	1.41 H	32	18.80	37.50
7	7236.00	47.80 PK	74.00	-26.20	1.69 H	355	7.30	40.50
7	7236.00	35.90 AV	54.00	-18.10	1.69 H	355	-4.60	40.50

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	2368.00	59.60 PK	74.00	-14.40	1.00 V	5	29.10	30.50
1	2368.00	51.60 AV	54.00	-2.40	1.00 V	5	21.10	30.50
2	2390.00	63.90 PK	74.00	-10.10	1.21 V	5	30.20	33.70
2	2390.00	51.90 AV	54.00	-2.10	1.21 V	5	18.20	33.70
3	*2412.00	104.30 PK			1.21 V	5	74.50	29.80
3	*2412.00	95.00 AV			1.21 V	5	65.20	29.80
4	4824.00	43.10 PK	74.00	-30.90	1.01 V	309	8.00	35.10
4	4824.00	31.00 AV	54.00	-23.00	1.01 V	309	-4.10	35.10
5	5578.00	45.10 PK	74.00	-28.90	1.00 V	39	9.20	35.90
5	5578.00	33.80 AV	54.00	-20.20	1.00 V	39	-2.10	35.90
6	6336.00	61.70 PK	84.30	-22.60	1.00 V	54	24.20	37.50
6	6336.00	60.80 AV	75.00	-14.20	1.00 V	54	23.30	37.50
7	7236.00	48.20 PK	74.00	-25.80	1.00 V	31	7.70	40.50
7	7236.00	36.10 AV	54.00	-17.90	1.00 V	31	-4.40	40.50

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	46.00 PK	74.00	-28.00	1.20 H	24	15.50	30.50
1	2368.00	35.10 AV	54.00	-18.90	1.20 H	24	4.60	30.50
2	*2437.00	94.70 PK			1.00 H	30	64.80	29.90
2	*2437.00	85.80 AV			1.00 H	30	55.90	29.90
3	4874.00	43.50 PK	74.00	-30.50	1.43 H	344	8.20	35.30
3	4874.00	32.30 AV	54.00	-21.70	1.43 H	344	-3.00	35.30
4	5606.00	48.10 PK	74.00	-25.90	1.33 H	334	12.10	36.00
4	5606.00	39.30 AV	54.00	-14.70	1.33 H	334	3.30	36.00
5	6336.00	58.00 PK	74.70	-16.70	1.42 H	33	20.50	37.50
5	6336.00	56.50 AV	65.80	-9.30	1.42 H	33	19.00	37.50
6	7311.00	51.30 PK	74.00	-22.70	1.00 H	349	10.60	40.70
6	7311.00	39.20 AV	54.00	-14.80	1.00 H	349	-1.50	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	63.10 PK	74.00	-10.90	1.00 V	6	32.60	30.50
1	2368.00	53.30 AV	54.00	-0.70	1.00 V	6	22.80	30.50
2	*2437.00	116.40 PK			1.21 V	3	86.50	29.90
2	*2437.00	106.50 AV			1.21 V	3	76.60	29.90
3	4874.00	46.50 PK	74.00	-27.50	1.00 V	306	11.20	35.30
3	4874.00	34.90 AV	54.00	-19.10	1.00 V	306	-0.40	35.30
4	5606.00	52.30 PK	74.00	-21.70	1.00 V	43	16.30	36.00
4	5606.00	42.90 AV	54.00	-11.10	1.00 V	43	6.90	36.00
5	6336.00	62.20 PK	96.40	-34.20	1.00 V	54	24.70	37.50
5	6336.00	61.10 AV	86.50	-25.40	1.00 V	54	23.60	37.50
6	7311.00	57.10 PK	74.00	-16.90	1.00 V	29	16.40	40.70
6	7311.00	44.40 AV	54.00	-9.60	1.00 V	29	3.70	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	42.60 PK	74.00	-31.40	1.19 H	24	12.10	30.50
1	2368.00	33.50 AV	54.00	-20.50	1.19 H	24	3.00	30.50
2	*2462.00	84.30 PK			1.46 H	346	54.30	30.00
2	*2462.00	75.90 AV			1.46 H	346	45.90	30.00
3	2483.50	45.00 PK	74.00	-29.00	1.46 H	346	14.90	30.10
3	2483.50	32.90 AV	54.00	-21.10	1.46 H	346	2.80	30.10
4	2496.00	45.90 PK	74.00	-28.10	1.46 H	346	13.10	32.80
4	2496.00	34.70 AV	54.00	-19.30	1.46 H	346	1.90	32.80
5	4924.00	42.60 PK	74.00	-31.40	1.49 H	21	7.00	35.50
5	4924.00	31.10 AV	54.00	-22.90	1.49 H	21	-4.50	35.50
6	5632.00	44.00 PK	74.00	-30.00	1.38 H	329	7.90	36.10
6	5632.00	32.90 AV	54.00	-21.10	1.38 H	329	-3.20	36.10
7	6336.00	58.10 PK	64.30	-6.20	1.40 H	31	20.60	37.50
7	6336.00	56.60 AV	55.90	-0.70	1.40 H	31	19.10	37.50
8	7386.00	48.10 PK	74.00	-25.90	1.71 H	348	7.30	40.80
8	7386.00	36.50 AV	54.00	-17.50	1.71 H	348	-4.30	40.80

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	2368.00	59.90 PK	74.00	-14.10	1.00 V	6	29.40	30.50
1	2368.00	51.80 AV	54.00	-2.20	1.00 V	6	21.30	30.50
2	*2462.00	104.30 PK			1.22 V	6	74.30	30.00
2	*2462.00	94.70 AV			1.22 V	6	64.70	30.00
3	2483.50	65.00 PK	74.00	-9.00	1.22 V	6	34.90	30.10
3	2483.50	51.70 AV	54.00	-2.30	1.22 V	6	21.60	30.10
4	2496.00	65.90 PK	74.00	-8.10	1.22 V	6	33.10	32.80
4	2496.00	53.50 AV	54.00	-0.50	1.22 V	6	20.70	32.80
5	4924.00	43.30 PK	74.00	-30.70	1.02 V	312	7.70	35.50
5	4924.00	31.90 AV	54.00	-22.10	1.02 V	312	-3.70	35.50
6	5632.00	45.50 PK	74.00	-28.50	1.00 V	46	9.40	36.10
6	5632.00	34.30 AV	54.00	-19.70	1.00 V	46	-1.80	36.10
7	6336.00	61.90 PK	84.30	-22.40	1.00 V	53	24.40	37.50
7	6336.00	60.90 AV	74.70	-13.80	1.00 V	53	23.40	37.50
8	7386.00	48.40 PK	74.00	-25.60	1.00 V	28	7.60	40.80
8	7386.00	37.00 AV	54.00	-17.00	1.00 V	28	-3.80	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Turbo Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	43.60 PK	74.00	-30.40	1.21 H	25	13.10	30.50
1	2368.00	34.90 AV	54.00	-19.10	1.21 H	25	4.40	30.50
2	2390.00	40.10 PK	74.00	-33.90	1.18 H	28	6.40	33.70
2	2390.00	26.10 AV	54.00	-27.90	1.18 H	28	-7.60	33.70
3	*2437.00	86.20 PK			1.18 H	28	56.30	29.90
3	*2437.00	77.40 AV			1.18 H	28	47.50	29.90
4	2483.50	40.50 PK	74.00	-33.50	1.18 H	28	10.40	30.10
4	2483.50	30.20 AV	54.00	-23.80	1.18 H	28	0.10	30.10
5	2496.00	38.60 PK	74.00	-35.40	1.18 H	28	5.80	32.80
5	2496.00	31.10 AV	54.00	-22.90	1.18 H	28	-1.70	32.80
6	4874.00	42.50 PK	74.00	-31.50	1.47 H	348	7.20	35.30
6	4874.00	31.00 AV	54.00	-23.00	1.47 H	348	-4.30	35.30
7	5606.00	44.00 PK	74.00	-30.00	1.35 H	335	8.00	36.00
7	5606.00	33.80 AV	54.00	-20.20	1.35 H	335	-2.20	36.00
8	6336.00	57.90 PK	66.20	-8.30	1.43 H	27	20.40	37.50
8	6336.00	56.20 AV	57.40	-1.20	1.43 H	27	18.70	37.50
9	7311.00	48.10 PK	74.00	-25.90	1.69 H	351	7.40	40.70
9	7311.00	36.30 AV	54.00	-17.70	1.69 H	351	-4.40	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	66.50 PK	74.00	-7.50	1.00 V	7	36.00	30.50
1	**2368.00**	**53.40 AV**	**54.00**	**-0.60**	**1.00 V**	**7**	**22.90**	**30.50**
2	2390.00	60.40 PK	74.00	-13.60	1.20 V	3	26.70	33.70
2	2390.00	46.40 AV	54.00	-7.60	1.20 V	3	12.70	33.70
3	*2437.00	106.50 PK			1.20 V	3	76.60	29.90
3	*2437.00	97.70 AV			1.20 V	3	67.80	29.90
4	2483.50	60.80 PK	74.00	-13.20	1.20 V	3	30.70	30.10
4	2483.50	50.50 AV	54.00	-3.50	1.20 V	3	20.40	30.10
5	2496.00	58.90 PK	74.00	-15.10	1.20 V	3	26.10	32.80
5	2496.00	50.80 AV	54.00	-3.20	1.20 V	3	18.00	32.80
6	4874.00	42.80 PK	74.00	-31.20	1.00 V	310	7.50	35.30
6	4874.00	31.70 AV	54.00	-22.30	1.00 V	310	-3.60	35.30
7	5606.00	46.00 PK	74.00	-28.00	1.02 V	44	10.00	36.00
7	5606.00	35.80 AV	54.00	-18.20	1.02 V	44	-0.20	36.00
8	6336.00	61.80 PK	86.50	-24.70	1.00 V	54	24.30	37.50
8	6336.00	60.80 AV	77.70	-16.90	1.00 V	54	23.30	37.50
9	7311.00	49.10 PK	74.00	-24.90	1.00 V	27	8.40	40.70
9	7311.00	37.60 AV	54.00	-16.40	1.00 V	27	-3.10	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.16 TEST RESULTS (MODE 3 –OFDM)

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 1	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	52.70 PK	74.00	-21.30	1.24 H	17	22.20	30.50
1	2368.00	42.80 AV	54.00	-11.20	1.24 H	17	12.30	30.50
2	2390.00	64.10 PK	74.00	-9.90	1.48 H	6	30.40	33.70
2	2390.00	51.00 AV	54.00	-3.00	1.48 H	6	17.30	33.70
3	*2412.00	102.00 PK			1.48 H	6	72.20	29.80
3	*2412.00	92.40 AV			1.48 H	6	62.60	29.80
4	4824.00	42.40 PK	74.00	-31.60	1.38 H	339	7.30	35.10
4	4824.00	30.80 AV	54.00	-23.20	1.38 H	339	-4.30	35.10
5	5578.00	44.50 PK	74.00	-29.50	1.41 H	328	8.60	35.90
5	5578.00	33.00 AV	54.00	-21.00	1.41 H	328	-2.90	35.90
6	6336.00	55.20 PK	82.00	-26.80	1.00 H	45	17.70	37.50
6	6336.00	53.30 AV	72.40	-19.10	1.00 H	45	15.80	37.50
7	7236.00	48.60 PK	74.00	-25.40	1.43 H	327	8.10	40.50
7	7236.00	36.50 AV	54.00	-17.50	1.43 H	327	-4.00	40.50

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	2368.00	55.60 PK	74.00	-18.40	1.29 V	332	25.10	30.50
1	2368.00	45.60 AV	54.00	-8.40	1.29 V	332	15.10	30.50
2	2390.00	66.80 PK	74.00	-7.20	1.27 V	33	33.10	33.70
2	2390.00	53.20 AV	54.00	-0.80	1.27 V	33	19.50	33.70
3	*2412.00	104.70 PK			1.27 V	33	74.90	29.80
3	*2412.00	94.60 AV			1.27 V	33	64.80	29.80
4	4824.00	42.60 PK	74.00	-31.40	1.28 V	319	7.50	35.10
4	4824.00	31.00 AV	54.00	-23.00	1.28 V	319	-4.10	35.10
5	5578.00	47.00 PK	74.00	-27.00	1.57 V	99	11.10	35.90
5	5578.00	36.90 AV	54.00	-17.10	1.57 V	99	1.00	35.90
6	6336.00	59.30 PK	84.70	-25.40	1.41 V	96	21.80	37.50
6	6336.00	58.20 AV	74.60	-16.40	1.41 V	96	20.70	37.50
7	7236.00	50.00 PK	74.00	-24.00	1.43 V	20	9.50	40.50
7	7236.00	37.10 AV	54.00	-16.90	1.43 V	20	-3.40	40.50

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	53.70 PK	74.00	-20.30	1.25 H	18	23.20	30.50
1	2368.00	43.30 AV	54.00	-10.70	1.25 H	18	12.80	30.50
2	*2437.00	108.50 PK			1.00 H	360	78.60	29.90
2	*2437.00	98.60 AV			1.00 H	360	68.70	29.90
3	4874.00	45.50 PK	74.00	-28.50	1.35 H	334	10.20	35.30
3	4874.00	33.70 AV	54.00	-20.30	1.35 H	334	-1.60	35.30
4	5606.00	48.20 PK	74.00	-25.80	1.43 H	326	12.20	36.00
4	5606.00	38.80 AV	54.00	-15.20	1.43 H	326	2.80	36.00
5	6336.00	55.40 PK	88.50	-33.10	1.01 H	44	17.90	37.50
5	6336.00	53.40 AV	78.60	-25.20	1.01 H	44	15.90	37.50
6	7311.00	58.30 PK	74.00	-15.70	1.38 H	339	17.60	40.70
6	7311.00	46.30 AV	54.00	-7.70	1.38 H	339	5.60	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.90 PK	74.00	-17.10	1.30 V	334	26.40	30.50
1	2368.00	46.80 AV	54.00	-7.20	1.30 V	334	16.30	30.50
2	*2437.00	110.40 PK			1.27 V	37	80.50	29.90
2	*2437.00	100.80 AV			1.27 V	37	70.90	29.90
3	4874.00	46.50 PK	74.00	-27.50	1.28 V	315	11.20	35.30
3	4874.00	35.10 AV	54.00	-18.90	1.28 V	315	-0.20	35.30
4	5606.00	53.90 PK	74.00	-20.10	1.58 V	101	17.90	36.00
4	5606.00	43.70 AV	54.00	-10.30	1.58 V	101	7.70	36.00
5	6336.00	59.40 PK	91.40	-32.00	1.40 V	95	21.90	37.50
5	6336.00	58.40 AV	80.80	-22.40	1.40 V	95	20.90	37.50
6	7311.00	60.40 PK	74.00	-13.60	1.44 V	19	19.70	40.70
6	7311.00	47.80 AV	54.00	-6.20	1.44 V	19	7.10	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	52.90 PK	74.00	-21.10	1.24 H	18	22.40	30.50
1	2368.00	42.90 AV	54.00	-11.10	1.24 H	18	12.40	30.50
2	*2462.00	102.10 PK			1.75 H	7	72.10	30.00
2	*2462.00	92.60 AV			1.75 H	7	62.60	30.00
3	2483.50	59.90 PK	74.00	-14.10	1.75 H	7	29.80	30.10
3	2483.50	51.30 AV	54.00	-2.70	1.75 H	7	21.20	30.10
4	2496.00	57.40 PK	74.00	-16.60	1.75 H	7	24.60	32.80
4	2496.00	46.00 AV	54.00	-8.00	1.75 H	7	13.20	32.80
5	4924.00	43.30 PK	74.00	-30.70	1.37 H	341	7.70	35.50
5	4924.00	31.50 AV	54.00	-22.50	1.37 H	341	-4.10	35.50
6	5632.00	45.10 PK	74.00	-28.90	1.45 H	331	9.00	36.10
6	5632.00	33.40 AV	54.00	-20.60	1.45 H	331	-2.70	36.10
7	6336.00	55.10 PK	82.10	-27.00	1.01 H	46	17.60	37.50
7	6336.00	53.10 AV	72.60	-19.50	1.01 H	46	15.60	37.50
8	7386.00	49.50 PK	74.00	-24.50	1.42 H	343	8.70	40.80
8	7386.00	37.00 AV	54.00	-17.00	1.42 H	343	-3.80	40.80

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	2368.00	53.40 PK	74.00	-20.60	1.29 V	333	22.90	30.50
1	2368.00	45.40 AV	54.00	-8.60	1.29 V	333	14.90	30.50
2	*2462.00	104.20 PK			1.24 V	32	74.20	30.00
2	*2462.00	94.30 AV			1.24 V	32	64.30	30.00
3	2483.50	62.00 PK	74.00	-12.00	1.24 V	32	31.90	30.10
3	2483.50	53.00 AV	54.00	-1.00	1.24 V	32	22.90	30.10
4	2496.00	59.50 PK	74.00	-14.50	1.24 V	32	26.70	32.80
4	2496.00	47.70 AV	54.00	-6.30	1.24 V	32	14.90	32.80
5	4924.00	43.70 PK	74.00	-30.30	1.30 V	324	8.10	35.50
5	4924.00	32.00 AV	54.00	-22.00	1.30 V	324	-3.60	35.50
6	5632.00	47.60 PK	74.00	-26.40	1.58 V	102	11.50	36.10
6	5632.00	37.60 AV	54.00	-16.40	1.58 V	102	1.50	36.10
7	6336.00	59.40 PK	84.20	-24.80	1.40 V	96	21.90	37.50
7	6336.00	58.30 AV	74.30	-16.00	1.40 V	96	20.80	37.50
8	7386.00	50.90 PK	74.00	-23.10	1.47 V	26	10.10	40.80
8	7386.00	37.70 AV	54.00	-16.30	1.47 V	26	-3.10	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Turbo Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	52.90 PK	74.00	-21.10	1.24 H	17	22.40	30.50
1	2368.00	43.10 AV	54.00	-10.90	1.24 H	17	12.60	30.50
2	2390.00	63.50 PK	74.00	-10.50	1.48 H	7	29.80	33.70
2	2390.00	49.30 AV	54.00	-4.70	1.48 H	7	15.60	33.70
3	*2437.00	103.40 PK			1.48 H	7	73.50	29.90
3	*2437.00	93.90 AV			1.48 H	7	64.00	29.90
4	2483.50	54.60 PK	74.00	-19.40	1.48 H	7	24.50	30.10
4	2483.50	49.20 AV	54.00	-4.80	1.48 H	7	19.10	30.10
5	2496.00	60.10 PK	74.00	-13.90	1.48 H	7	27.30	32.80
5	2496.00	44.40 AV	54.00	-9.60	1.48 H	7	11.60	32.80
6	4874.00	43.70 PK	74.00	-30.30	1.41 H	338	8.40	35.30
6	4874.00	31.70 AV	54.00	-22.30	1.41 H	338	-3.60	35.30
7	5606.00	44.80 PK	74.00	-29.20	1.39 H	323	8.80	36.00
7	5606.00	34.70 AV	54.00	-19.30	1.39 H	323	-1.30	36.00
8	6336.00	55.00 PK	83.40	-28.40	1.00 H	45	17.50	37.50
8	6336.00	53.30 AV	73.90	-20.60	1.00 H	45	15.80	37.50
9	7311.00	52.80 PK	74.00	-21.20	1.36 H	335	12.10	40.70
9	7311.00	39.40 AV	54.00	-14.60	1.36 H	335	-1.30	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.50 PK	74.00	-17.50	1.30 V	333	26.00	30.50
1	2368.00	46.60 AV	54.00	-7.40	1.30 V	333	16.10	30.50
2	2390.00	66.30 PK	74.00	-7.70	1.27 V	36	32.60	33.70
2	2390.00	52.10 AV	54.00	-1.90	1.27 V	36	18.40	33.70
3	*2437.00	106.00 PK			1.27 V	36	76.10	29.90
3	*2437.00	96.70 AV			1.27 V	36	66.80	29.90
4	2483.50	67.40 PK	74.00	-6.60	1.27 V	36	37.30	30.10
4	2483.50	52.00 AV	54.00	-2.00	1.27 V	36	21.90	30.10
5	2496.00	62.90 PK	74.00	-11.10	1.27 V	36	30.10	32.80
5	2496.00	47.20 AV	54.00	-6.80	1.27 V	36	14.40	32.80
6	4874.00	44.10 PK	74.00	-29.90	1.29 V	317	8.80	35.30
6	4874.00	32.00 AV	54.00	-22.00	1.29 V	317	-3.30	35.30
7	5606.00	48.30 PK	74.00	-25.70	1.59 V	103	12.30	36.00
7	5606.00	39.40 AV	54.00	-14.60	1.59 V	103	3.40	36.00
8	6336.00	59.20 PK	86.00	-26.80	1.41 V	96	21.70	37.50
8	6336.00	58.10 AV	76.70	-18.60	1.41 V	96	20.60	37.50
9	7311.00	52.80 PK	74.00	-21.20	1.46 V	18	12.10	40.70
9	7311.00	41.00 AV	54.00	-13.00	1.46 V	18	0.30	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.8.17 TEST RESULTS (MODE 4 –OFDM)

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 1	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	50.40 PK	74.00	-23.60	1.23 H	344	19.90	30.50
1	2368.00	42.50 AV	54.00	-11.50	1.23 H	344	12.00	30.50
2	2390.00	56.40 PK	74.00	-17.60	1.13 H	341	22.70	33.70
2	2390.00	46.40 AV	54.00	-7.60	1.13 H	341	12.70	33.70
3	*2412.00	97.60 PK			1.13 H	341	67.80	29.80
3	*2412.00	87.90 AV			1.13 H	341	58.10	29.80
4	4824.00	42.40 PK	74.00	-31.60	1.17 H	318	7.30	35.10
4	4824.00	30.70 AV	54.00	-23.30	1.17 H	318	-4.40	35.10
5	5578.00	43.70 PK	74.00	-30.30	1.45 H	331	7.80	35.90
5	5578.00	32.90 AV	54.00	-21.10	1.45 H	331	-3.00	35.90
6	6336.00	55.40 PK	77.60	-22.20	1.27 H	62	17.90	37.50
6	6336.00	53.70 AV	67.90	-14.20	1.27 H	62	16.20	37.50
7	7236.00	47.40 PK	74.00	-26.60	1.10 H	323	6.90	40.50
7	7236.00	35.90 AV	54.00	-18.10	1.10 H	323	-4.60	40.50

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	2368.00	55.90 PK	74.00	-18.10	1.24 V	10	25.40	30.50
1	2368.00	47.90 AV	54.00	-6.10	1.24 V	10	17.40	30.50
2	2390.00	63.10 PK	74.00	-10.90	1.23 V	29	29.40	33.70
2	2390.00	53.10 AV	54.00	-0.90	1.23 V	29	19.40	33.70
3	*2412.00	104.30 PK			1.23 V	29	74.50	29.80
3	*2412.00	94.60 AV			1.23 V	29	64.80	29.80
4	4824.00	42.80 PK	74.00	-31.20	1.07 V	314	7.70	35.10
4	4824.00	31.10 AV	54.00	-22.90	1.07 V	314	-4.00	35.10
5	5578.00	45.90 PK	74.00	-28.10	1.23 V	57	10.00	35.90
5	5578.00	36.20 AV	54.00	-17.80	1.23 V	57	0.30	35.90
6	6336.00	60.20 PK	84.30	-24.10	1.45 V	28	22.70	37.50
6	6336.00	59.30 AV	74.60	-15.30	1.45 V	28	21.80	37.50
7	7236.00	48.00 PK	74.00	-26.00	1.06 V	17	7.50	40.50
7	7236.00	36.50 AV	54.00	-17.50	1.06 V	17	-4.00	40.50

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	51.90 PK	74.00	-22.10	1.24 H	343	21.40	30.50
1	2368.00	43.30 AV	54.00	-10.70	1.24 H	343	12.80	30.50
2	*2437.00	103.10 PK			1.11 H	348	73.20	29.90
2	*2437.00	93.70 AV			1.11 H	348	63.80	29.90
3	4874.00	46.50 PK	74.00	-27.50	1.15 H	315	11.20	35.30
3	4874.00	34.80 AV	54.00	-19.20	1.15 H	315	-0.50	35.30
4	5606.00	48.00 PK	74.00	-26.00	1.47 H	336	12.00	36.00
4	5606.00	38.30 AV	54.00	-15.70	1.47 H	336	2.30	36.00
5	6336.00	55.30 PK	83.10	-27.80	1.28 H	62	17.80	37.50
5	6336.00	53.40 AV	73.70	-20.30	1.28 H	62	15.90	37.50
6	7311.00	52.30 PK	74.00	-21.70	1.18 H	327	11.60	40.70
6	7311.00	40.80 AV	54.00	-13.20	1.18 H	327	0.10	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	59.10 PK	74.00	-14.90	1.23 V	10	28.60	30.50
1	2368.00	48.90 AV	54.00	-5.10	1.23 V	10	18.40	30.50
2	*2437.00	110.30 PK			1.23 V	30	80.40	29.90
2	*2437.00	100.70 AV			1.23 V	30	70.80	29.90
3	4874.00	47.80 PK	74.00	-26.20	1.08 V	306	12.50	35.30
3	4874.00	35.80 AV	54.00	-18.20	1.08 V	306	0.50	35.30
4	5606.00	53.30 PK	74.00	-20.70	1.24 V	59	17.30	36.00
4	5606.00	43.20 AV	54.00	-10.80	1.24 V	59	7.20	36.00
5	6336.00	60.70 PK	91.30	-30.60	1.44 V	28	23.20	37.50
5	6336.00	59.50 AV	80.70	-21.20	1.44 V	28	22.00	37.50
6	7311.00	59.80 PK	74.00	-14.20	1.07 V	10	19.10	40.70
6	7311.00	47.00 AV	54.00	-7.00	1.07 V	10	6.30	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Channel 11	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	50.80 PK	74.00	-23.20	1.23 H	347	20.30	30.50
1	2368.00	42.90 AV	54.00	-11.10	1.23 H	347	12.40	30.50
2	*2462.00	97.40 PK			1.12 H	343	67.40	30.00
2	*2462.00	87.50 AV			1.12 H	343	57.50	30.00
3	2483.50	55.20 PK	74.00	-18.80	1.12 H	343	25.10	30.10
3	2483.50	46.20 AV	54.00	-7.80	1.12 H	343	16.10	30.10
4	2496.00	52.70 PK	74.00	-21.30	1.12 H	343	19.90	32.80
4	2496.00	40.90 AV	54.00	-13.10	1.12 H	343	8.10	32.80
5	4924.00	43.50 PK	74.00	-30.50	1.16 H	323	7.90	35.50
5	4924.00	32.00 AV	54.00	-22.00	1.16 H	323	-3.60	35.50
6	5632.00	44.40 PK	74.00	-29.60	1.46 H	342	8.30	36.10
6	5632.00	33.30 AV	54.00	-20.70	1.46 H	342	-2.80	36.10
7	6336.00	55.20 PK	77.40	-22.20	1.27 H	61	17.70	37.50
7	6336.00	53.40 AV	67.50	-14.10	1.27 H	61	15.90	37.50
8	7386.00	48.10 PK	74.00	-25.90	1.23 H	334	7.30	40.80
8	7386.00	36.50 AV	54.00	-17.50	1.23 H	334	-4.30	40.80

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	2368.00	56.30 PK	74.00	-17.70	1.25 V	11	25.80	30.50
1	2368.00	48.20 AV	54.00	-5.80	1.25 V	11	17.70	30.50
2	*2462.00	104.20 PK			1.19 V	30	74.20	30.00
2	*2462.00	94.60 AV			1.19 V	30	64.60	30.00
3	2483.50	62.00 PK	74.00	-12.00	1.19 V	30	31.90	30.10
3	2483.50	53.30 AV	54.00	-0.70	1.19 V	30	23.20	30.10
4	2496.00	59.50 PK	74.00	-14.50	1.19 V	30	26.70	32.80
4	2496.00	48.00 AV	54.00	-6.00	1.19 V	30	15.20	32.80
5	4924.00	43.90 PK	74.00	-30.10	1.08 V	307	8.30	35.50
5	4924.00	32.40 AV	54.00	-21.60	1.08 V	307	-3.20	35.50
6	5632.00	46.50 PK	74.00	-27.50	1.23 V	58	10.40	36.10
6	5632.00	36.70 AV	54.00	-17.30	1.23 V	58	0.60	36.10
7	6336.00	60.40 PK	84.20	-23.80	1.45 V	27	22.90	37.50
7	6336.00	59.40 AV	74.60	-15.20	1.45 V	27	21.90	37.50
8	7386.00	49.00 PK	74.00	-25.00	1.08 V	13	8.20	40.80
8	7386.00	37.30 AV	54.00	-16.70	1.08 V	13	-3.50	40.80

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Upgrade Kit - 802.11g	MODEL	WL-463
MODE	Turbo Channel 6	FREQUENCY RANGE	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	21 deg. C, 74%RH, 977 hPa	TESTED BY	Rex Huang

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	2368.00	52.40 PK	74.00	-21.60	1.23 H	345	21.90	30.50
1	2368.00	43.70 AV	54.00	-10.30	1.23 H	345	13.20	30.50
2	2390.00	51.90 PK	74.00	-22.10	1.11 H	347	18.20	33.70
2	2390.00	38.00 AV	54.00	-16.00	1.11 H	347	4.30	33.70
3	*2437.00	96.40 PK			1.11 H	347	66.50	29.90
3	*2437.00	86.60 AV			1.11 H	347	56.70	29.90
4	2483.50	52.60 PK	74.00	-21.40	1.11 H	347	22.50	30.10
4	2483.50	39.90 AV	54.00	-14.10	1.11 H	347	9.80	30.10
5	2496.00	46.90 PK	74.00	-27.10	1.11 H	347	14.10	32.80
5	2496.00	38.70 AV	54.00	-15.30	1.11 H	347	5.90	32.80
6	4874.00	44.00 PK	74.00	-30.00	1.13 H	321	8.70	35.30
6	4874.00	32.10 AV	54.00	-21.90	1.13 H	321	-3.20	35.30
7	5606.00	45.40 PK	74.00	-28.60	1.44 H	334	9.40	36.00
7	5606.00	34.40 AV	54.00	-19.60	1.44 H	334	-1.60	36.00
8	6336.00	55.20 PK	76.40	-21.20	1.26 H	61	17.70	37.50
8	6336.00	53.30 AV	66.60	-13.30	1.26 H	61	15.80	37.50
9	7311.00	48.90 PK	74.00	-25.10	1.19 H	329	8.20	40.70
9	7311.00	37.10 AV	54.00	-16.90	1.19 H	329	-3.60	40.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	58.90 PK	74.00	-15.10	1.24 V	9	28.40	30.50
1	2368.00	49.50 AV	54.00	-4.50	1.24 V	9	19.00	30.50
2	2390.00	59.10 PK	74.00	-14.90	1.24 V	29	25.40	33.70
2	2390.00	45.30 AV	54.00	-8.70	1.24 V	29	11.60	33.70
3	*2437.00	103.60 PK			1.24 V	29	73.70	29.90
3	*2437.00	93.90 AV			1.24 V	29	64.00	29.90
4	2483.50	59.80 PK	74.00	-14.20	1.24 V	29	29.70	30.10
4	2483.50	47.20 AV	54.00	-6.80	1.24 V	29	17.10	30.10
5	2496.00	54.10 PK	74.00	-19.90	1.24 V	29	21.30	32.80
5	2496.00	46.00 AV	54.00	-8.00	1.24 V	29	13.20	32.80
6	4874.00	44.50 PK	74.00	-29.50	1.11 V	313	9.20	35.30
6	4874.00	32.60 AV	54.00	-21.40	1.11 V	313	-2.70	35.30
7	5606.00	48.00 PK	74.00	-26.00	1.23 V	59	12.00	36.00
7	5606.00	38.40 AV	54.00	-15.60	1.23 V	59	2.40	36.00
8	6336.00	60.50 PK	83.60	-23.10	1.45 V	28	23.00	37.50
8	6336.00	59.50 AV	73.90	-14.40	1.45 V	28	22.00	37.50
9	7311.00	52.40 PK	74.00	-21.60	1.13 V	16	11.70	40.70
9	7311.00	39.50 AV	54.00	-14.50	1.13 V	16	-1.20	40.70

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.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

3.9 6dB BANDWIDTH MEASUREMENT

3.9.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

3.9.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005

NOTE:

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

3.9.3 TEST PROCEDURE

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

3.9.4 TEST SETUP

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

3.9.5 EUT OPERATING CONDITIONS

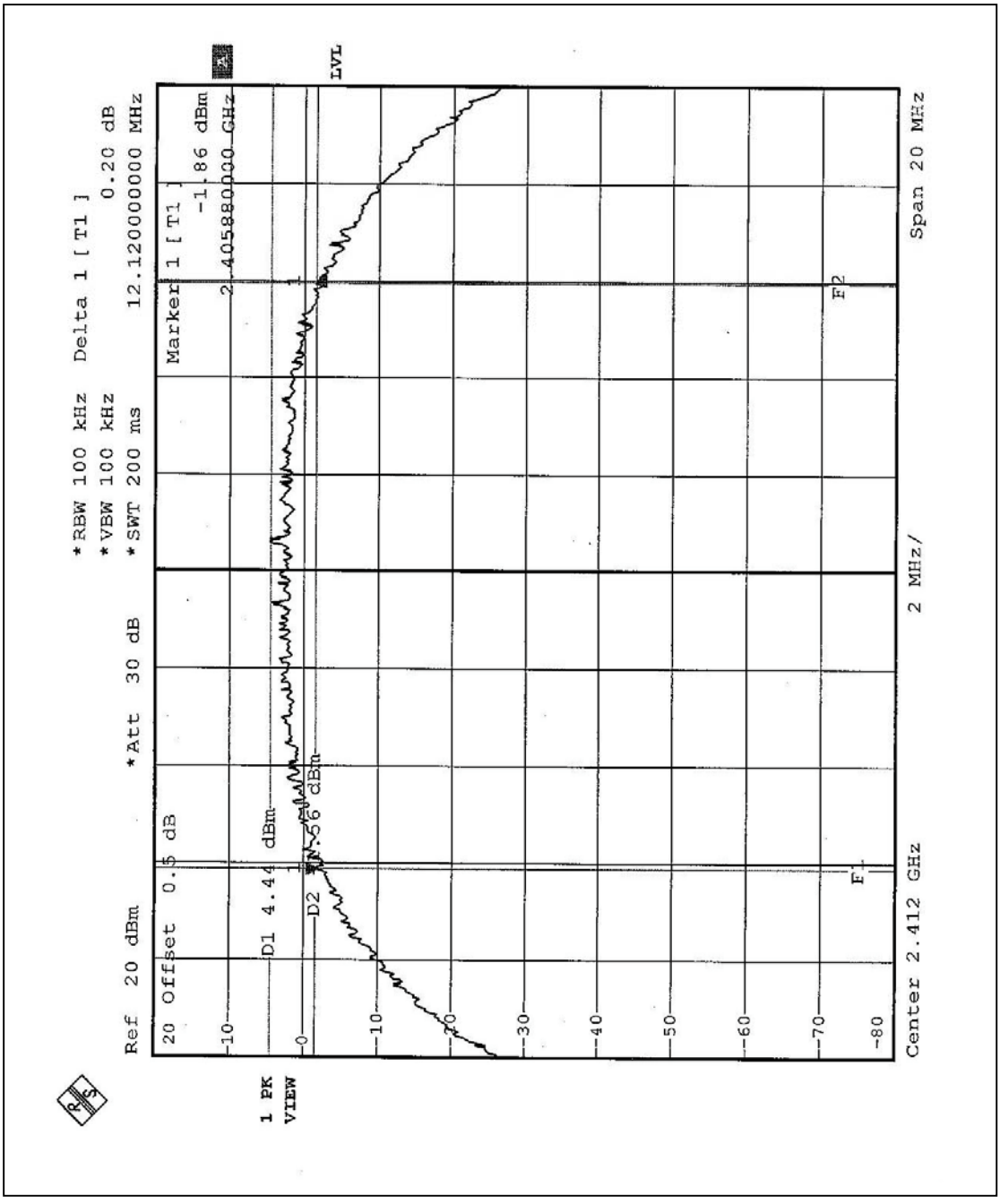
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

3.9.6 TEST RESULTS – DSSS(Mode 1,2,4)

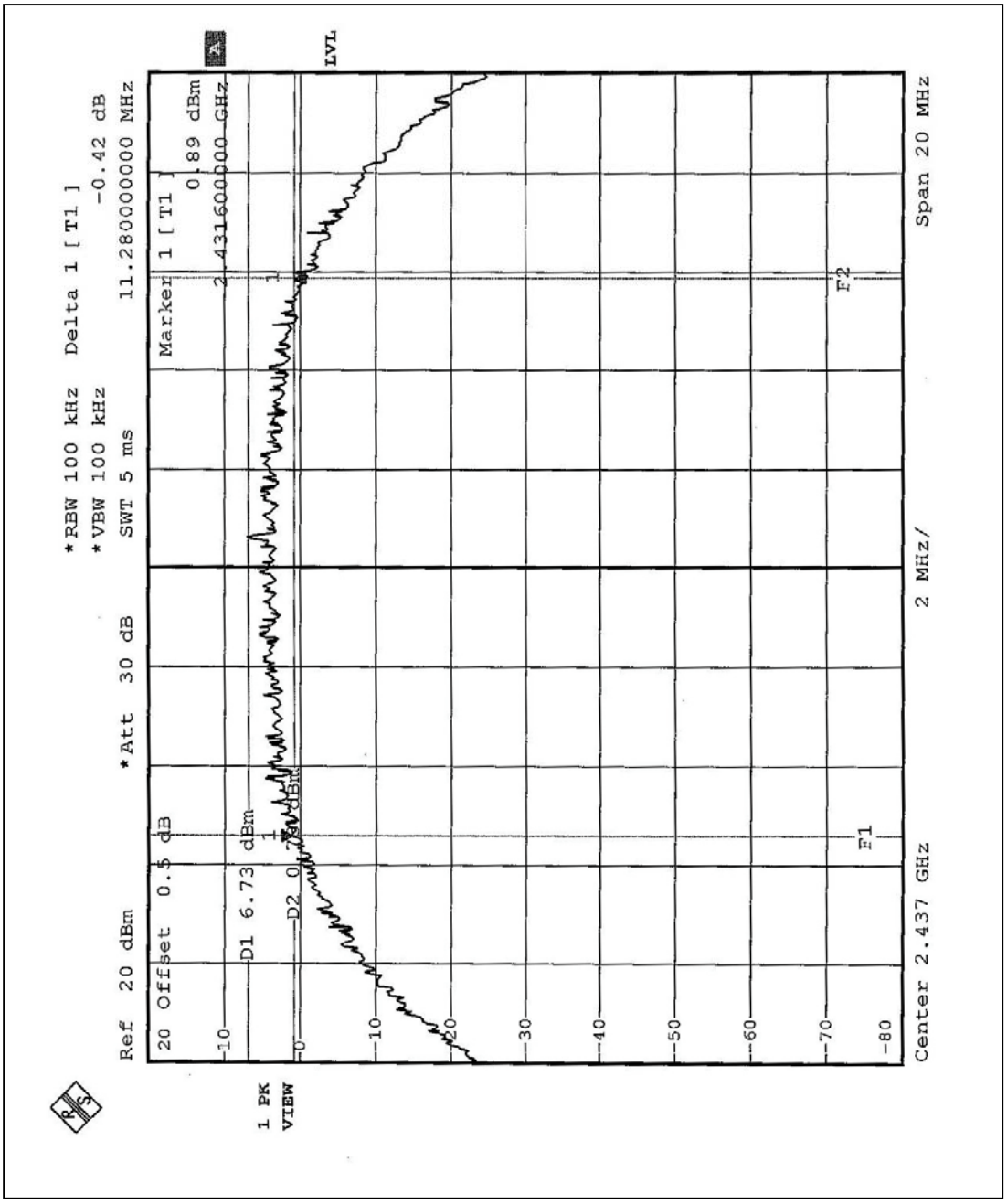
EUT	Upgrade Kit - 802.11g		
MODEL	WL-463	**ENVIRONMENTAL CONDITIONS**	24 deg. C, 60%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TESTED BY**	Hank Chung

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.12	0.5	PASS
6	2437	11.28	0.5	PASS
11	2462	11.88	0.5	PASS

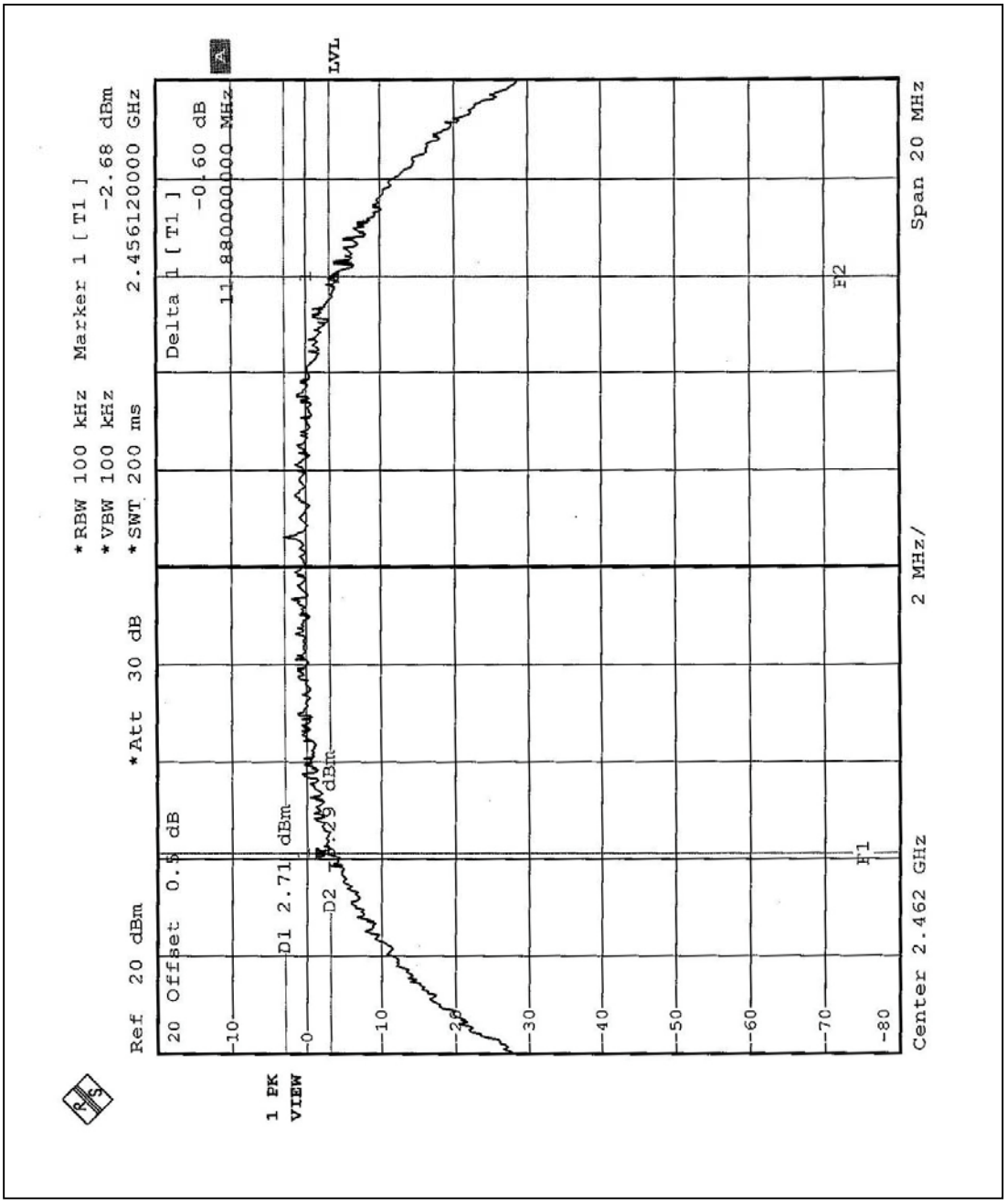
CH1


Ref 20 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
*SWT 200 ms
Delta 1 [T1]
0.20 dB
12.120000000 MHz
Marker 1 [T1]
-1.86 dBm
2.405880000 GHz
D1 4.44 dBm
D2 -5.56 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz

CH6


Ref 20 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.42 dB
11.280000000 MHz
Marker 1 [T1]
0.89 dBm
2.431600000 GHz
D1 6.73 dBm
D2 0 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

CH11

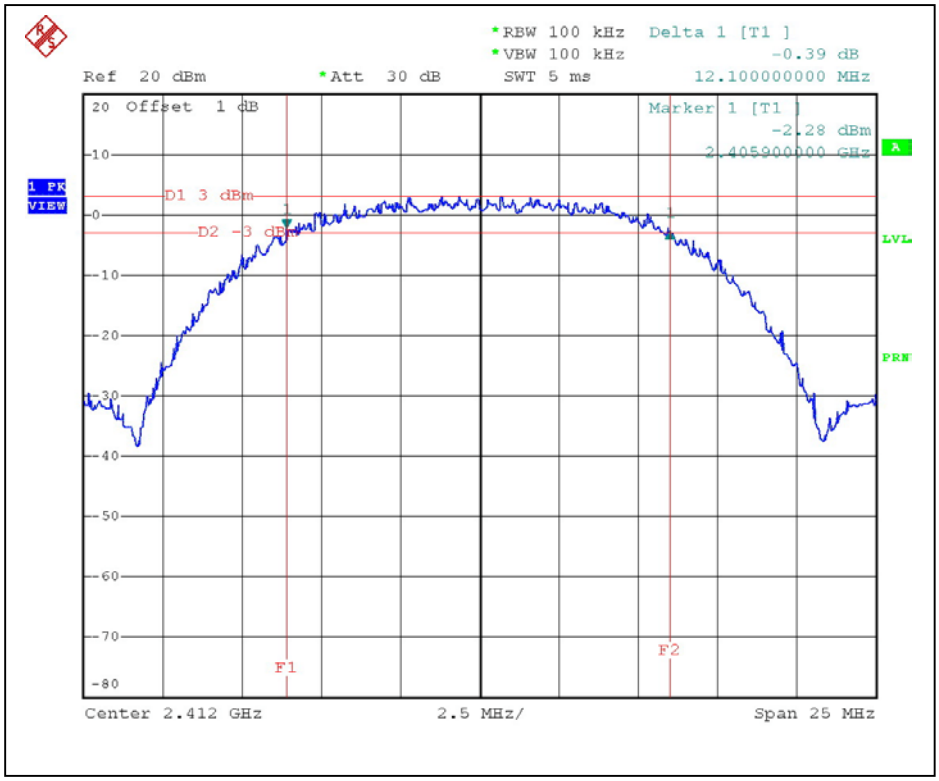

Ref 20 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
*SWT 200 ms
Marker 1 [T1]
-2.68 dBm
2.456120000 GHz
Delta 1 [T1]
-0.60 dB
11.880000000 MHz
D1 2.71 dBm
D2 -29 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

3.9.7 TEST RESULTS – DSSS(Mode 3)

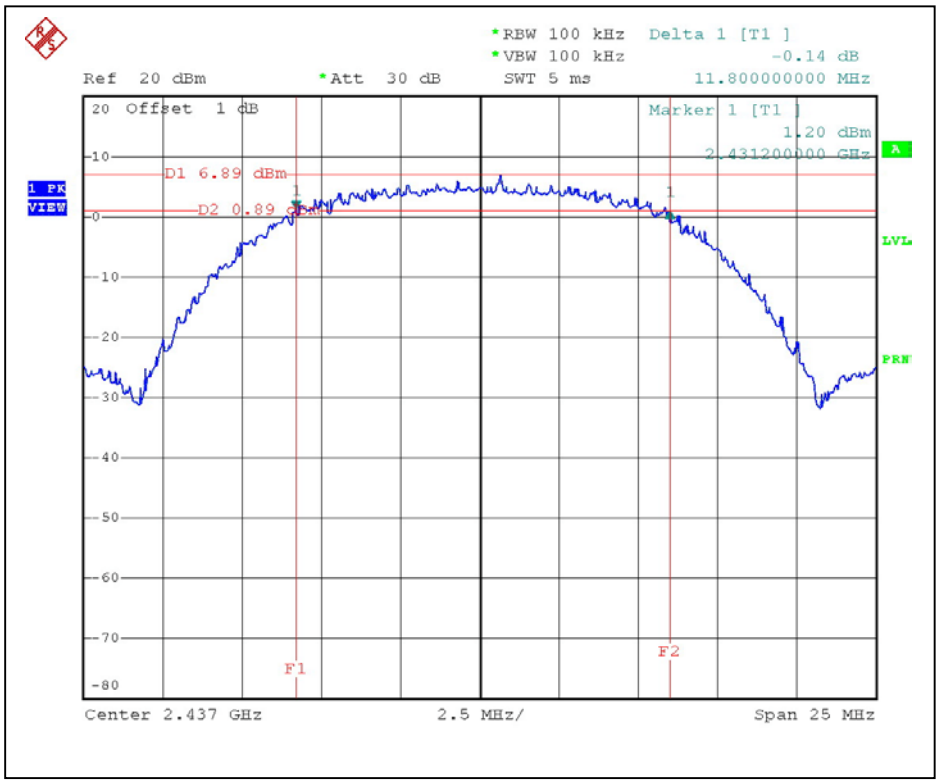
EUT	Upgrade Kit - 802.11g		
MODEL	WL-463	**ENVIRONMENTAL CONDITIONS**	24 deg. C, 62%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TESTED BY**	Rex Huang

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.10	0.5	PASS
6	2437	11.80	0.5	PASS
11	2462	11.05	0.5	PASS

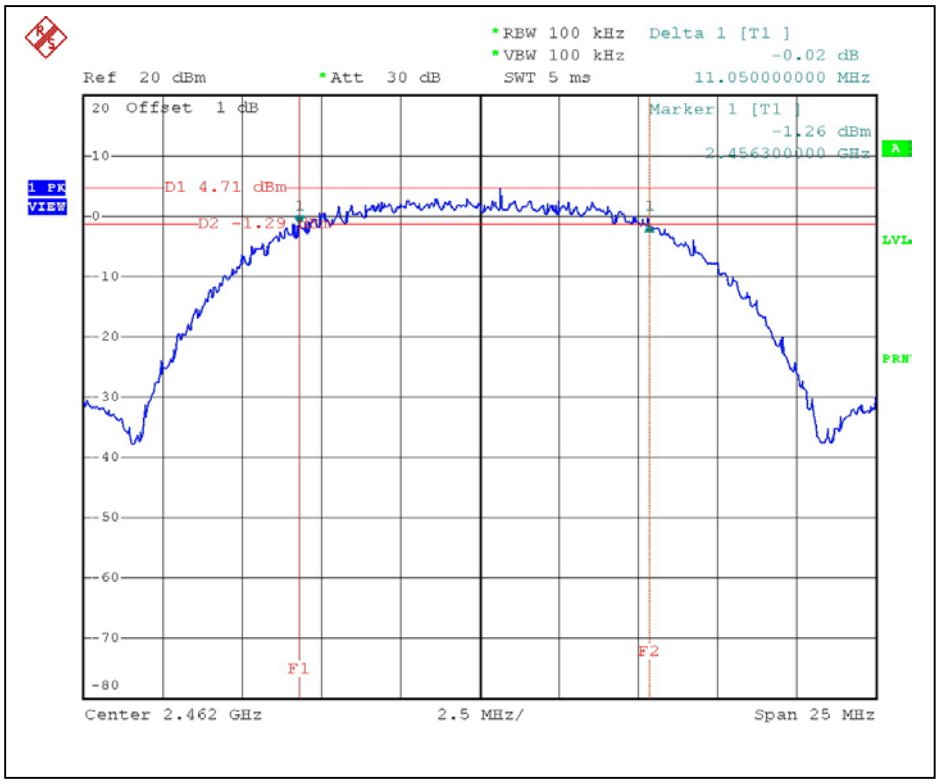
CH1


*RBW 100 kHz
Delta 1 [T1]
*VBW 100 kHz
-0.39 dB
Ref 20 dBm
*Att 30 dB
SWT 5 ms
12.100000000 MHz
20 Offset 1 dB
Marker 1 [T1]
-2.28 dBm
2.405900000 GHz
1 PK VIEW
D1 3 dBm
D2 -3 dB
LVL
PRN
F1
F2
Center 2.412 GHz
2.5 MHz/
Span 25 MHz

CH6


*RBW 100 kHz
Delta 1 [T1]
*VBW 100 kHz
-0.14 dB
Ref 20 dBm
*Att 30 dB
SWT 5 ms
11.800000000 MHz
20 Offset 1 dB
Marker 1 [T1]
1.20 dBm
2.431200000 GHz
1 PK VIEW
D1 6.89 dBm
D2 0.89 dB
LVL
PRN
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz

CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.02 dB
11.050000000 MHz
Ref 20 dBm
*Att 30 dB
SWT 5 ms
20 Offset 1 dB
Marker 1 [T1]
-1.26 dBm
2.456300000 GHz
D1 4.71 dBm
D2 -1.29 dBm
1 PK VIEW
A
LVL
PRN
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz