FCC TEST REPORT

REPORT NO.: RF960202H01
MODEL NO.: DWA-520
RECEIVED: Feb. 02, 2007
TESTED: Feb. 15 to March 29, 2007
ISSUED: April 02, 2007

APPLICANT: D-Link Corporation

ADDRESS: No.289, Shinhu 3rd Rd., Neihu District, Taipei City 114, 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

No. 2177-01

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1 CERTIFICATION

PRODUCT :	Wireless PCI Adapter
BRAND NAME :	D-Link
MODEL NO. :	DWA-520
TESTED:	Feb. 15 to March 29, 2007
APPLICANT :	D-Link Corporation
TEST ITEM:	ENGINEERING SAMPLE
STANDARDS :	47 CFR Part 15, Subpart C (Section 15.247) ANSI C63.4-2003

The above equipment (Model: DWA-520) 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 : Claire Kuan , **DATE:** April 02, 2007
(Claire Kuan)

TECHNICAL ACCEPTANCE : Moris Lin , **DATE:** April 02, 2007
Responsible for RF
(Moris Lin)

APPROVED BY : Hank Chung , **DATE:** April 02, 2007
(Hank Chung, Deputy 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 –16.09 dB at 8.465 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 –0.38 dB at 2483.50 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

2.1 MEASUREMENT UNCERTAINTY

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

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	**Value**
Conducted emissions	2.41 dB
Radiated emissions (30MHz-1GHz)	3.89 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~40GHz)	1.88 dB

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless PCI Adapter
MODEL NO.	DWA-520
FCC ID	KA2WA520A1
POWER SUPPLY	DC 3.3~5V from host equipment
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
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)
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
CHANNEL SPACING	5MHz
OUTPUT POWER	802.11b: 61.094mW 802.11g: 163.305mW
ANTENNA TYPE	Dipole antenna with 1.8dBi antenna gain
DATA CABLE	NA
I/O PORT	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps. (Turbo mode up to 108Mbps)

2. The EUT complies with IEEE 802.11g standards, and backwards compatible with IEEE 802.11b products.

3. 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	
-	√	√	√	√	-

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)
802.11b	1 to 11	1	DSSS	CCK	1
802.11g (Turbo)	6	6	DSSS	BPSK	12

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	6	OFDM	BPSK	6
802.11g (Turbo)	6	6	OFDM	BPSK	12

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	1
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	1
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	1
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 a Wireless PCI Adapter. 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.

3.5 DESCRIPTION OF SUPPORT UNITS

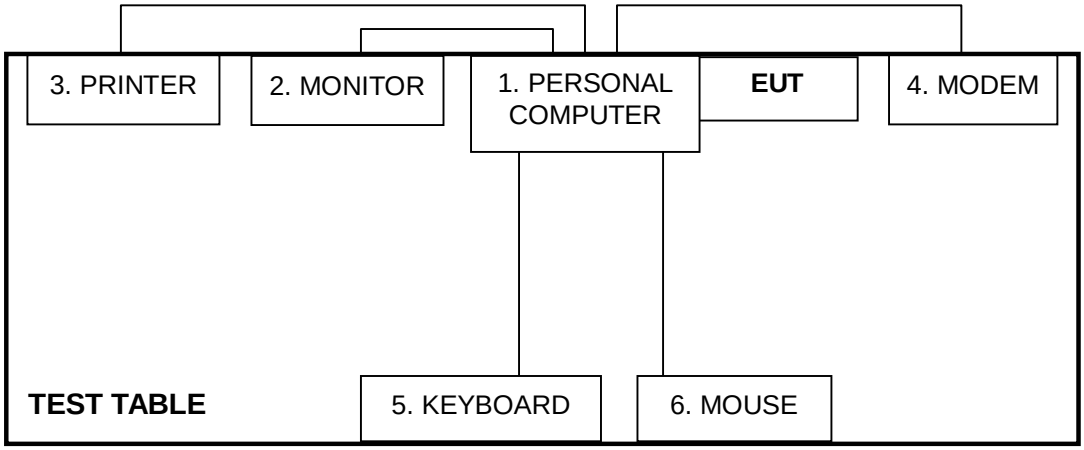
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	PERSONAL COMPUTER	DELL	DH8	8H90618	NA
2	MONITOR	ADI	G1000	240058T00100081	DoC
3	PRINTER	HP	C2642A	MY79J1D00G	B94C2642X
4	MODEM	ACEEX	1414	0206026779	IFAXDM1414
5	KEYBOARD	FORWARD	FDA-104GA	FDKB 8110055	F4ZFDA-104G
6	MOUSE	GENUINE	MS16	688031002108	NA

No.	Signal cable description
1	NA
2	1.8 m braid shielded wire, terminated with DVI connector via metallic frame, w. 2 cores
3	1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
4	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.8 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
6	1.8 m foil shielded wire, terminated with PS/2 connector via drain wire, with 1 core.

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.

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 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.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100287	Mar. 06, 2008
Line-Impedance Stabilization Network(for EUT)	ENV-216	100072	Oct. 20, 2007
Line-Impedance Stabilization Network(for Peripheral)	KNW-407	8-1395-12	Aug. 15, 2007
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 19, 2007
Terminator	50	1	Oct. 30, 2007
Software	ADT_Cond_V7.3.2	NA	NA

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

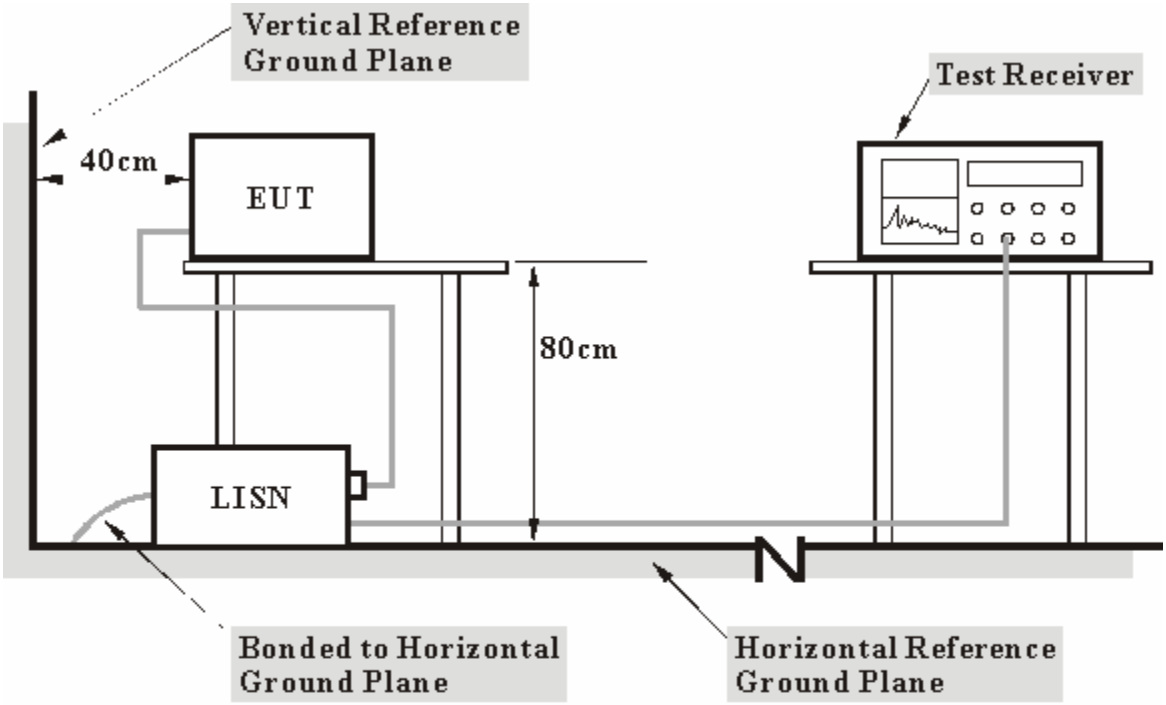
4.1.3 TEST PROCEDURES

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

4.1.4 TEST SETUP



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

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

4.1.5 EUT OPERATING CONDITIONS

1. Plug the EUT into the support unit 1 (Personal computer) which placed on a testing table.
2. The support unit 1 (Personal computer) ran a test program “Art 51 build 8” to enable EUT under transmission condition continuously.
3. Personal computer sends "H" messages to printer, and the printer prints them on paper.
4. Personal computer sends "H" messages to modem.

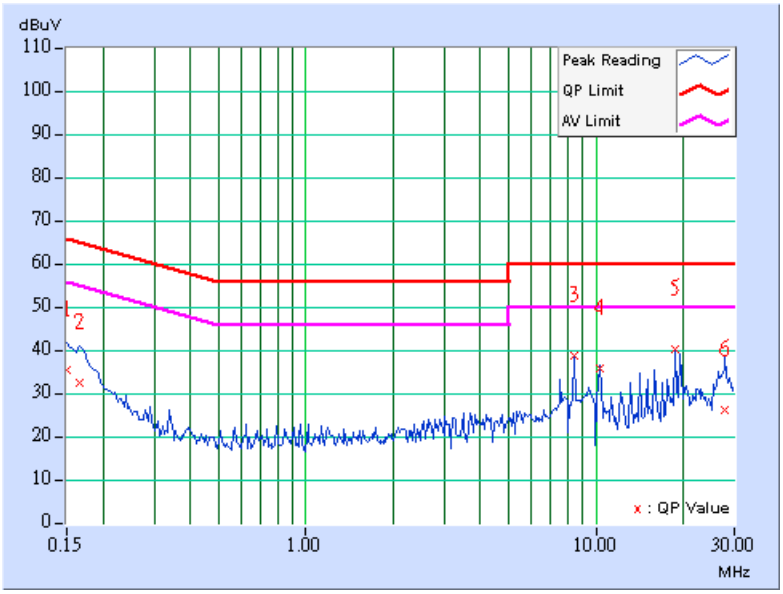
4.1.6 TEST RESULTS

Conducted Worst-Case Data (Normal mode)

MODULATION TYPE	DSSS	**CHANNEL**	Channel 1
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**6dB BANDWIDTH**	9 kHz
PHASE	Line (L)	**TRANSFER RATE**	1Mbps
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	**TESTED BY**	Tony Chen

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	25.10	-	34.85	-	66.00	56.00	-31.15	-
2	0.166	9.77	21.93	-	31.70	-	65.18	55.18	-33.48	-
3	8.465	10.05	28.54	-	38.59	-	60.00	50.00	-21.41	-
4	10.344	10.12	25.33	-	35.45	-	60.00	50.00	-24.55	-
5	18.809	10.48	29.99	-	40.47	-	60.00	50.00	-19.53	-
6	27.934	10.50	15.91	-	26.41	-	60.00	50.00	-33.59	-

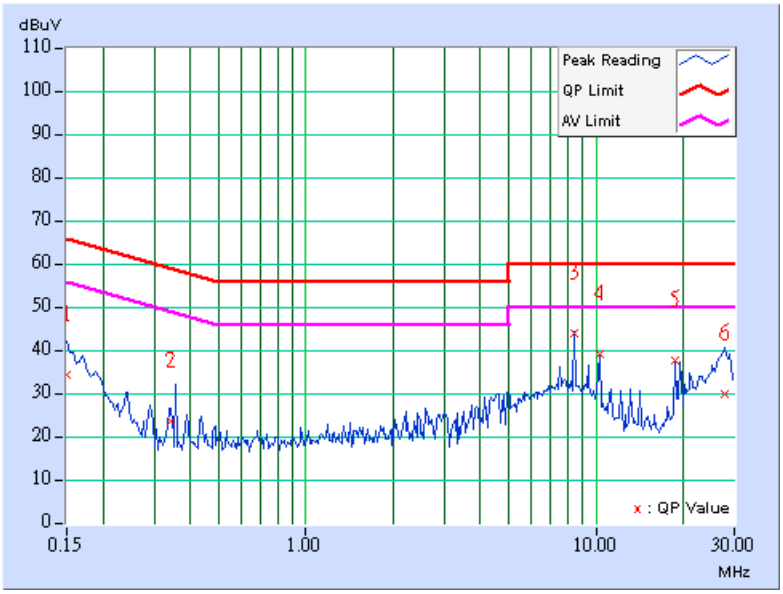
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



MODULATION TYPE	DSSS	**Channel**	Channel 1
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**6dB BANDWIDTH**	9 kHz
PHASE	Neutral (N)	**TRANSFER RATE**	1Mbps
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	**TESTED BY**	Tony Chen

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	24.22	-	33.97	-	66.00	56.00	-32.03	-
2	0.341	9.80	13.62	-	23.42	-	59.19	49.19	-35.77	-
3	**8.465**	**10.05**	**33.86**	**-**	**43.91**	**-**	**60.00**	**50.00**	**-16.09**	**-**
4	10.344	10.11	29.13	-	39.24	-	60.00	50.00	-20.76	-
5	18.809	10.20	27.65	-	37.85	-	60.00	50.00	-22.15	-
6	27.945	10.14	19.94	-	30.08	-	60.00	50.00	-29.92	-

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.

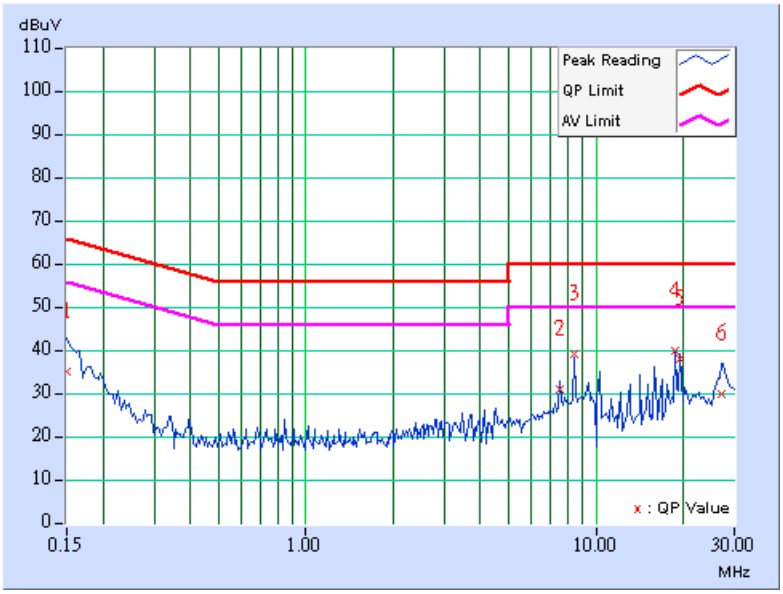


Conducted Worst-Case Data (Turbo mode)

MODULATION TYPE	OFDM	**CHANNEL**	Channel 6
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**6dB BANDWIDTH**	9 kHz
PHASE	Line (L)	**TRANSFER RATE**	12Mbps
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 965hPa	**TESTED BY**	Tony Chen

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	24.67	-	34.42	-	66.00	56.00	-31.58	-
2	7.523	10.02	20.74	-	30.76	-	60.00	50.00	-29.24	-
3	8.465	10.05	28.66	-	38.71	-	60.00	50.00	-21.29	-
4	18.809	10.48	29.62	-	40.10	-	60.00	50.00	-19.90	-
5	19.488	10.49	27.52	-	38.01	-	60.00	50.00	-21.99	-
6	27.227	10.50	19.45	-	29.95	-	60.00	50.00	-30.05	-

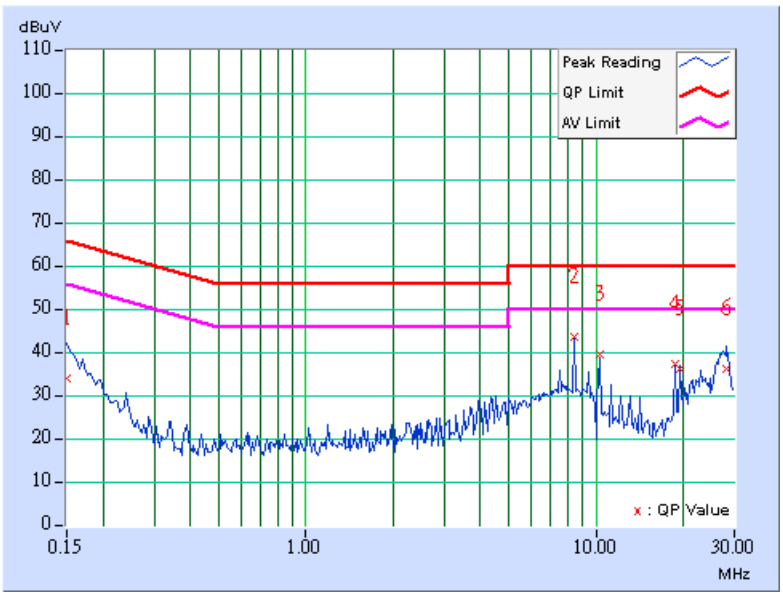
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



MODULATION TYPE	OFDM	**Channel**	Channel 6
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**6dB BANDWIDTH**	9 kHz
PHASE	Neutral (N)	**TRANSFER RATE**	12Mbps
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 965hPa	**TESTED BY**	Tony Chen

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	9.75	24.12	-	33.87	-	66.00	56.00	-32.13	-
2	8.465	10.05	33.62	-	43.67	-	60.00	50.00	-16.33	-
3	10.344	10.11	29.64	-	39.75	-	60.00	50.00	-20.25	-
4	18.809	10.20	27.43	-	37.63	-	60.00	50.00	-22.37	-
5	19.488	10.20	26.07	-	36.27	-	60.00	50.00	-23.73	-
6	28.266	10.13	26.08	-	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.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

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

NOTE:

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

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ADVANTEST Spectrum Analyzer	R3271A	85060311	July 03, 2007
HP Pre_Amplifier	8449B	3008A01922	Sep. 18, 2007
ROHDE & SCHWARZ Test Receiver	ESCS30	100375	Sep. 20, 2007
CHASE Broadband Antenna	VULB 9168	138	July 17, 2007
Schwarzbeck Horn_Antenna	BBHA9120	D124	Jan. 01, 2008
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170153	Jan. 05, 2008
SCHWARZBECK Biconical Antenna	VHBA9123	459	Jun. 08, 2009
SCHWARZBECK Periodic Antenna	UPA6108	1148	Jun. 08, 2009
R&S Loop Antenna	HFH2-Z2	881058/15	Nov. 29, 2007
RF Switches (ARNITSU)	CS-201	1565157	NA
RF CABLE (Chaintek)	SF102	22054-2	Nov. 14. 2007
RF Cable(RICHTEC)	9913-30M N-N Cable	STCCAB-30M-1 GHz	Jul. 15, 2007
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 Biconical and Periodic Antenna)and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, HP preamplifier (model: 8449B) and Spectrum Analyzer (model: R3271A) 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 4824A-3.
7. The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Radiated emissions (30MHz-1GHz)	2.98 dB
Radiated emissions (1GHz ~18GHz)	2.21 dB
Radiated emissions (18GHz ~40GHz)	1.88 dB

4.2.3 TEST PROCEDURES

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

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

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

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

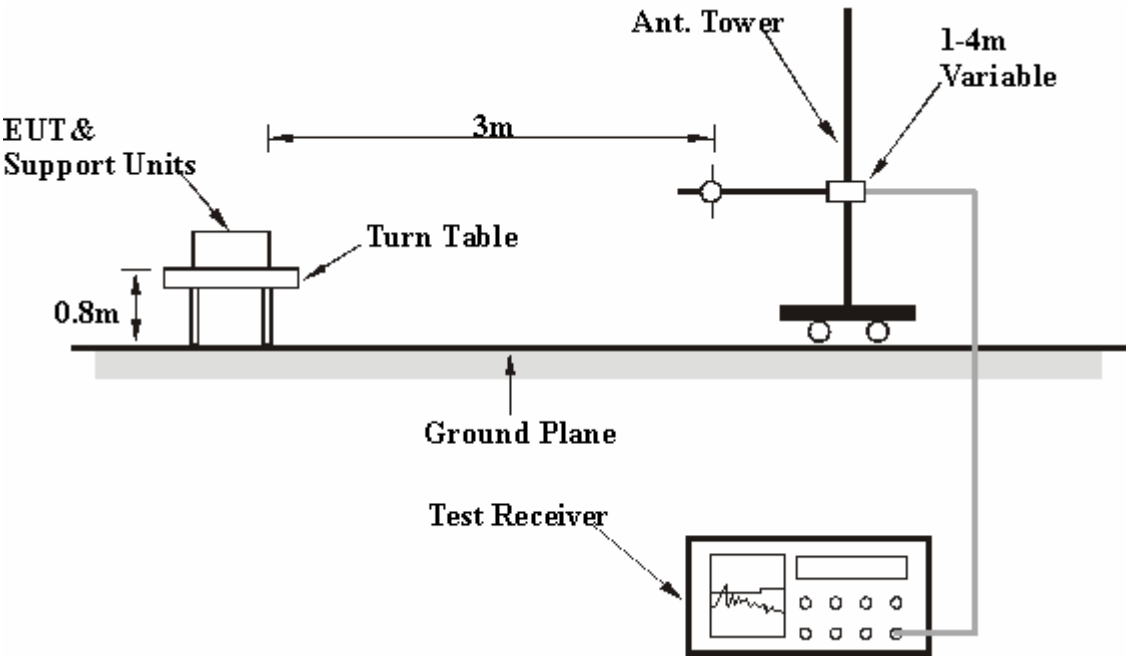
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

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

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 TEST SETUP



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

4.2.5 EUT OPERATING CONDITIONS

Same as 4.1.5

4.2.6 TEST RESULTS

Below 1GHz Worst-Case Data (Normal mode)

MODULATION TYPE	OFDM	**CHANNEL**	Channel 6
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	30-1000 MHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	**TRANSFER RATE**	6Mbps
TESTED BY	Tony Chen	**DETECTOR FUNCTION**	Quasi-Peak, 120kHz

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	41.75	22.60 QP	40.00	-17.40	1.30 H	281	8.20	14.40
2	158.03	17.10 QP	43.50	-26.40	1.24 H	252	3.00	14.10
3	200.14	25.40 QP	43.50	-18.10	1.15 H	318	13.80	11.60
4	214.77	19.90 QP	43.50	-23.60	1.29 H	85	7.70	12.20
5	240.04	30.10 QP	46.00	-15.90	1.35 H	321	16.70	13.30
6	480.08	24.00 QP	46.00	-22.00	1.26 H	10	2.70	21.30
7	830.45	35.40 QP	46.00	-10.60	1.54 H	53	7.40	28.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	40.33	28.10 QP	40.00	-11.90	1.23 V	280	13.80	14.30
2	158.03	28.40 QP	43.50	-15.10	1.09 V	300	14.30	14.10
3	200.23	25.50 QP	43.50	-18.00	1.14 V	197	13.90	11.60
4	240.04	24.80 QP	46.00	-21.20	1.24 V	219	11.40	13.30
5	480.08	27.20 QP	46.00	-18.80	1.24 V	240	5.90	21.30
6	830.45	38.70 QP	46.00	-7.30	1.11 V	153	10.60	28.10

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

Below 1GHz Worst-Case Data (Turbo mode)

MODULATION TYPE	OFDM	**CHANNEL**	Channel 6
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	30-1000 MHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 965hPa	**TRANSFER RATE**	12Mbps
TESTED BY	Tony Chen	**DETECTOR FUNCTION**	Quasi-Peak, 120kHz

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	42.30	23.60 QP	40.00	-16.40	1.24 H	146	9.20	14.40
2	158.03	18.30 QP	43.50	-25.20	1.20 H	253	4.20	14.10
3	200.13	26.30 QP	43.50	-17.20	1.10 H	107	14.70	11.60
4	214.76	20.30 QP	43.50	-23.20	1.07 H	360	8.10	12.20
5	240.04	31.20 QP	46.00	-14.80	1.07 H	58	17.90	13.30
6	480.08	25.30 QP	46.00	-20.70	1.27 H	124	4.00	21.30
7	830.45	35.20 QP	46.00	-10.80	1.29 H	258	7.10	28.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	40.21	28.90 QP	40.00	-11.10	1.04 V	214	14.60	14.30
2	158.03	29.30 QP	43.50	-14.20	1.14 V	250	15.20	14.10
3	200.21	26.10 QP	43.50	-17.40	1.04 V	147	14.50	11.60
4	240.04	25.20 QP	46.00	-20.80	1.10 V	78	11.90	13.30
5	480.08	26.80 QP	46.00	-19.20	1.03 V	69	5.50	21.30
6	830.45	38.20 QP	46.00	-7.80	1.20 V	128	10.10	28.10

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

802.11b DSSS modulation

MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

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	2320.00	57.91 PK	74.00	-16.09	1.73 H	308	26.24	31.67
2	2320.00	48.36 AV	54.00	-5.64	1.73 H	308	16.69	31.67
3	2386.00	60.15 PK	74.00	-13.85	1.73 H	308	28.23	31.92
4	2386.00	50.83 AV	54.00	-3.17	1.73 H	308	18.91	31.92
5	*2412.00	100.90 PK			1.73 H	308	68.88	32.02
6	*2412.00	96.80 AV			1.73 H	308	64.78	32.02
7	4824.00	44.84 PK	74.00	-29.16	1.26 H	49	8.87	35.97
8	4824.00	32.60 AV	54.00	-21.40	1.26 H	49	-3.37	35.97
9	7236.00	53.62 PK	74.00	-20.38	1.31 H	294	11.38	42.24
10	7236.00	42.67 AV	54.00	-11.33	1.31 H	294	0.43	42.24

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	2320.00	57.23 PK	74.00	-16.77	1.11 V	25	25.56	31.67
2	2320.00	48.60 AV	54.00	-5.40	1.11 V	25	16.93	31.67
3	2385.00	61.05 PK	74.00	-12.95	1.65 V	326	29.14	31.91
4	2385.00	51.90 AV	54.00	-2.10	1.65 V	326	19.99	31.91
5	2390.00	61.80 PK	74.00	-12.20	1.52 V	32	29.87	31.93
6	2390.00	47.36 AV	54.00	-6.64	1.52 V	32	15.43	31.93
7	*2412.00	109.93 PK			1.41 V	6	77.91	32.02
8	*2412.00	106.05 AV			1.41 V	6	74.03	32.02
9	4824.00	55.12 PK	74.00	-18.88	1.26 V	32	19.15	35.97
10	4824.00	53.50 AV	54.00	-0.50	1.26 V	32	17.53	35.97
11	7236.00	56.24 PK	74.00	-17.76	1.67 V	84	14.00	42.24
12	7236.00	49.25 AV	54.00	-4.75	1.67 V	84	7.01	42.24

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

MODE	Channel 6	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

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	2320.00	60.10 PK	74.00	-13.90	1.76 H	310	28.40	31.70
1	2320.00	51.50 AV	54.00	-2.50	1.76 H	310	19.90	31.70
2	*2437.00	101.20 PK			1.23 H	312	69.10	32.10
2	*2437.00	97.70 AV			1.23 H	312	65.60	32.10
3	4874.00	45.40 PK	74.00	-28.60	1.37 H	2	9.30	36.10
3	4874.00	32.20 AV	54.00	-21.80	1.37 H	2	-3.90	36.10
4	7311.00	52.10 PK	74.00	-21.90	1.46 H	342	9.60	42.50
4	7311.00	40.10 AV	54.00	-13.90	1.46 H	342	-2.40	42.50

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	2320.00	53.20 PK	74.00	-20.80	1.45 V	47	21.60	31.70
1	2320.00	43.20 AV	54.00	-10.80	1.45 V	47	11.60	31.70
2	*2437.00	109.10 PK			1.45 V	14	77.00	32.10
2	*2437.00	106.10 AV			1.45 V	14	74.00	32.10
3	4874.00	55.90 PK	74.00	-18.10	1.25 V	32	19.80	36.10
3	4874.00	53.50 AV	54.00	-0.50	1.25 V	32	17.40	36.10
4	7311.00	58.10 PK	74.00	-15.90	1.65 V	2	15.60	42.50
4	7311.00	52.50 AV	54.00	-1.50	1.65 V	2	10.00	42.50

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

MODE	Channel 11	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

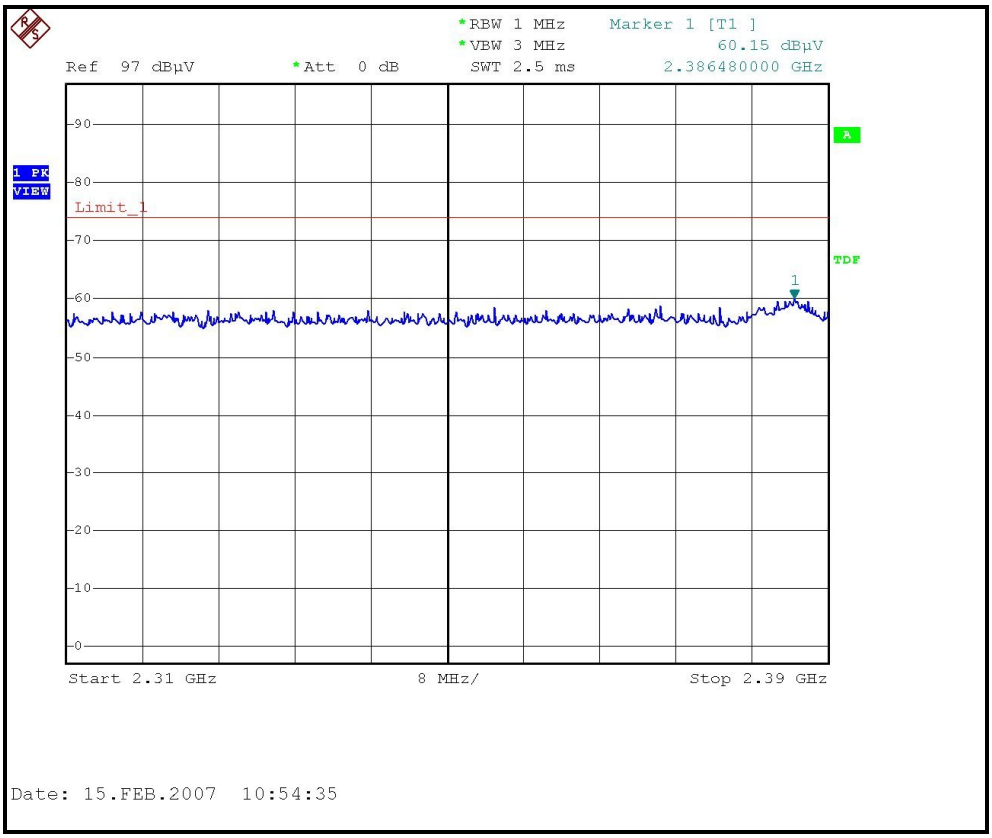
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2320.00	60.80 PK	74.00	-13.20	1.18 H	117	29.10	31.70
2	2320.00	51.20 AV	54.00	-2.80	1.18 H	117	19.50	31.70
3	*2462.00	101.50 PK			1.66 H	306	69.30	32.20
4	*2462.00	97.20 AV			1.66 H	306	65.00	32.20
5	2487.00	59.90 PK	74.00	-14.10	1.66 H	306	27.60	32.30
6	2487.00	48.20 AV	54.00	-5.80	1.66 H	306	15.90	32.30
7	4924.00	45.40 PK	74.00	-28.60	1.24 H	236	9.20	36.20
8	4924.00	32.80 AV	54.00	-21.20	1.24 H	236	-3.40	36.20
9	7386.00	53.60 PK	74.00	-20.40	1.30 H	318	10.90	42.80
10	7386.00	42.60 AV	54.00	-11.40	1.30 H	318	-0.20	42.80

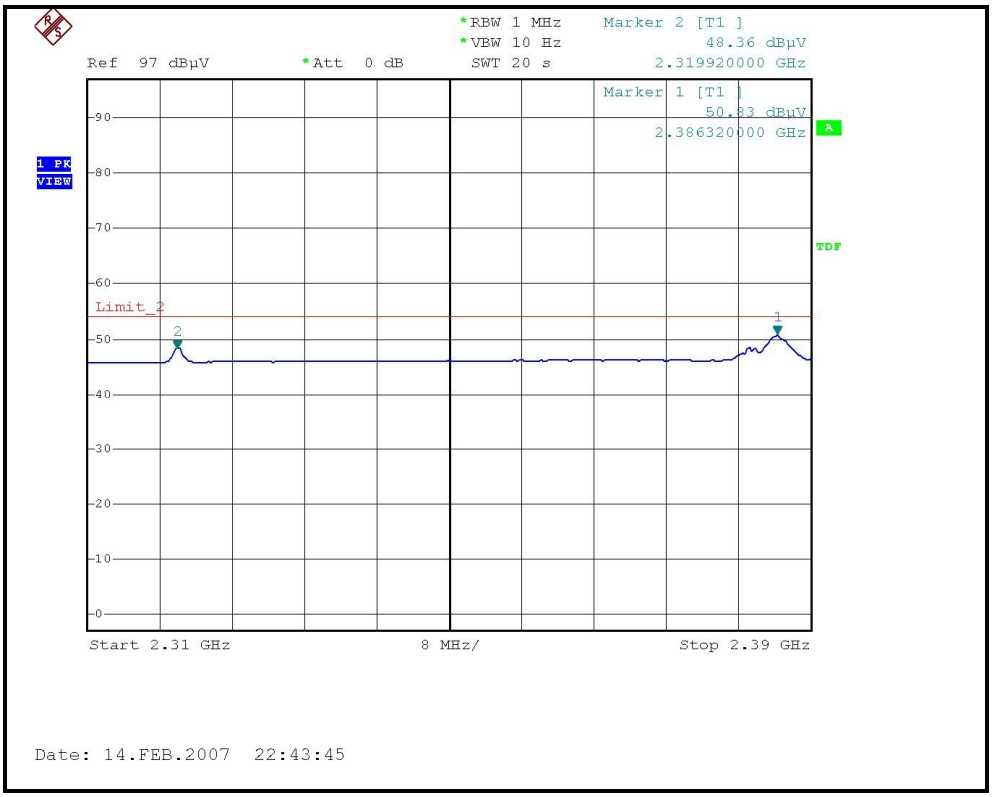
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	2320.00	52.23 PK	74.00	-21.77	1.35 V	65	20.56	31.67
2	2320.00	42.12 AV	54.00	-11.88	1.35 V	65	10.45	31.67
3	*2462.00	110.80 PK			1.54 V	24	78.59	32.21
4	*2462.00	107.20 AV			1.54 V	24	74.99	32.21
5	2483.50	56.60 PK	74.00	-17.40	1.56 V	54	24.31	32.29
6	2483.50	46.60 AV	54.00	-7.40	1.56 V	54	14.31	32.29
7	2492.00	56.70 PK	74.00	-17.30	1.56 V	6	24.38	32.32
8	2492.00	49.92 AV	54.00	-4.08	1.56 V	6	17.60	32.32
9	4924.00	53.98 PK	74.00	-20.02	1.33 V	231	17.79	36.19
10	4924.00	53.10 AV	54.00	-0.90	1.33 V	231	16.91	36.19
11	7386.00	59.40 PK	74.00	-14.60	1.01 V	50	16.60	42.80
12	7386.00	53.20 AV	54.00	-0.80	1.01 V	50	10.40	42.80

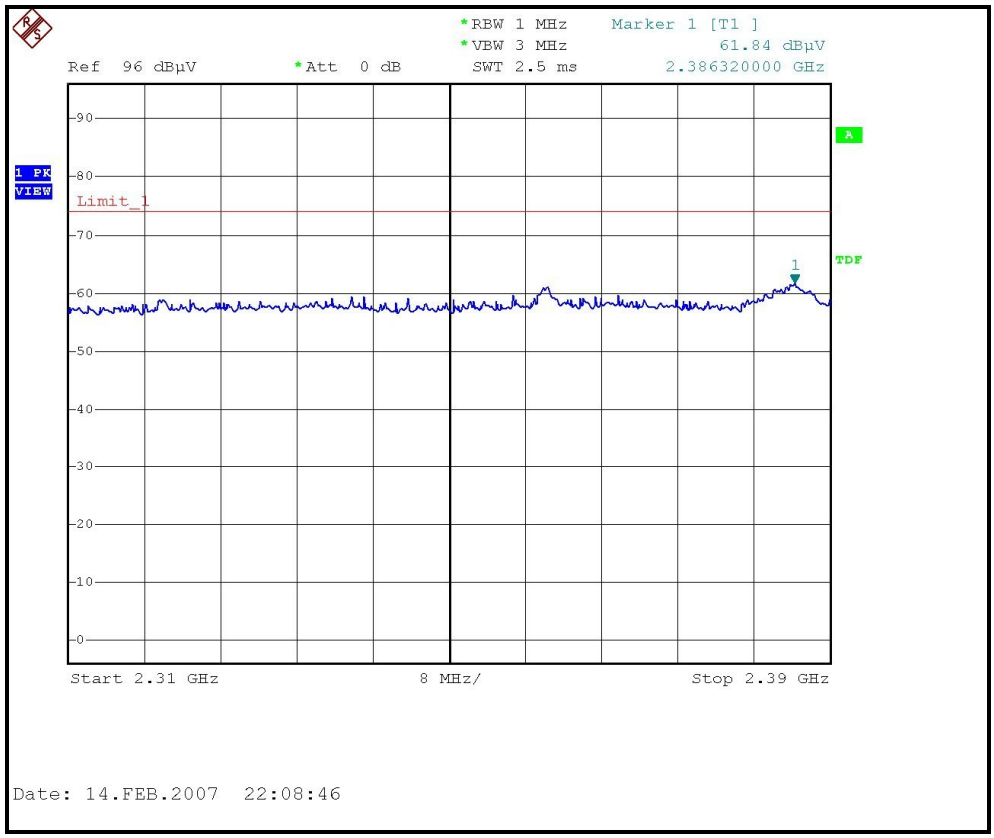
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

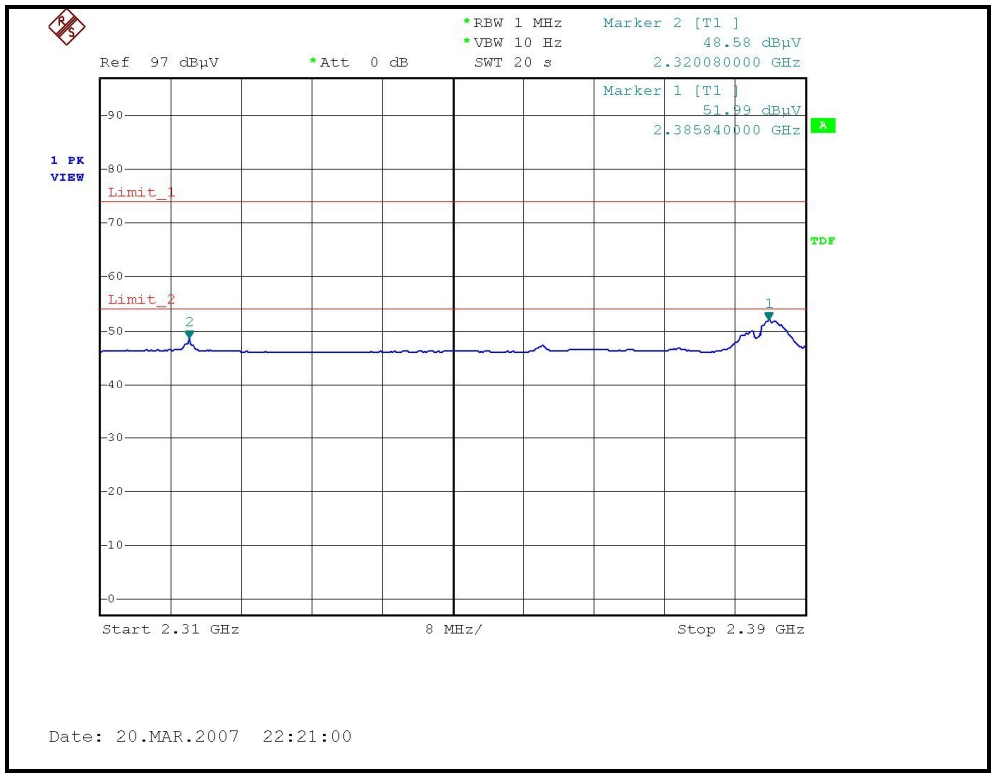
RESTRICTED BANDEDGE (802.11b MODE,CH1, HORIZONTAL)



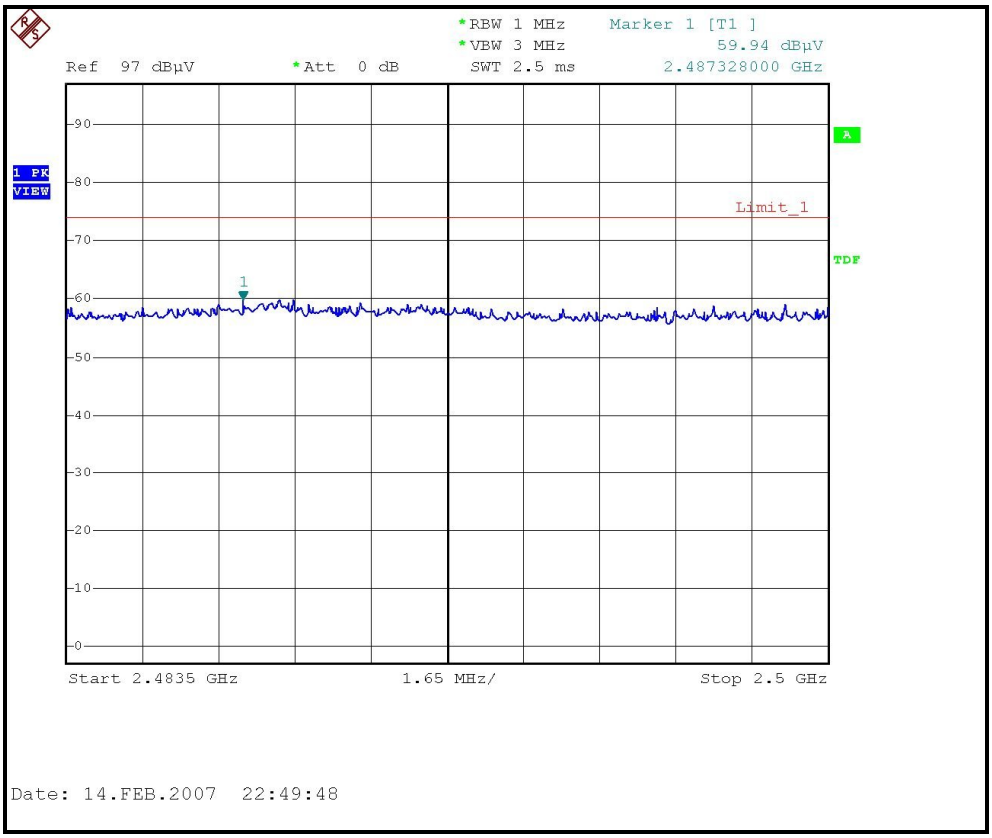


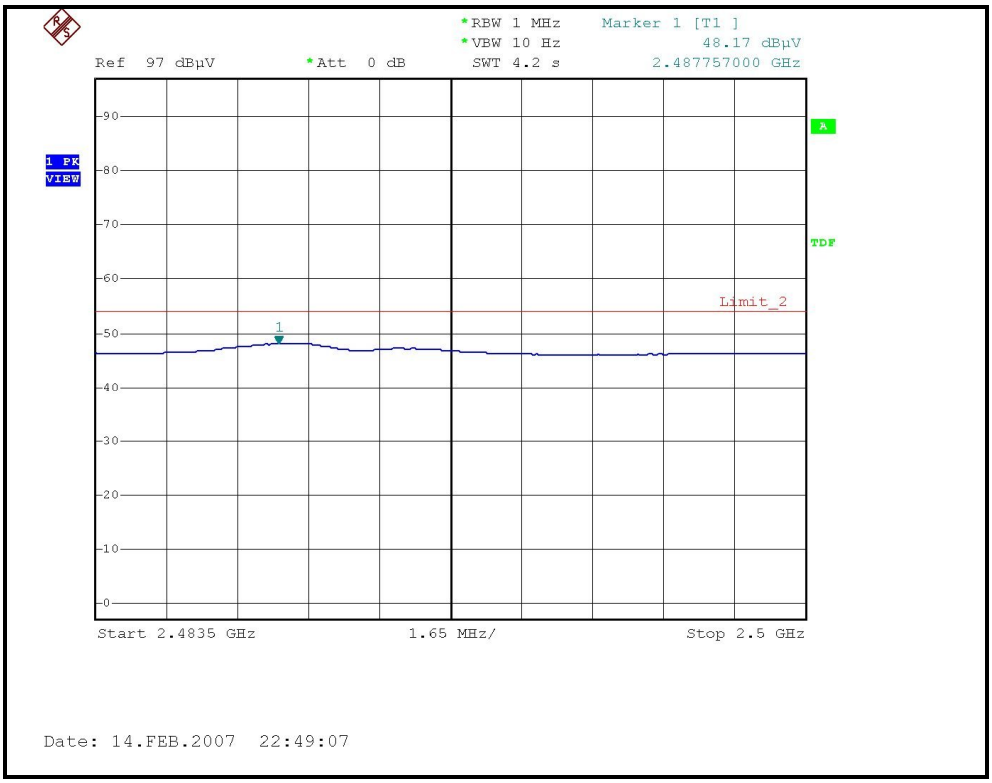
RESTRICTED BANDEDGE (802.11b MODE,CH1, VERTICAL)



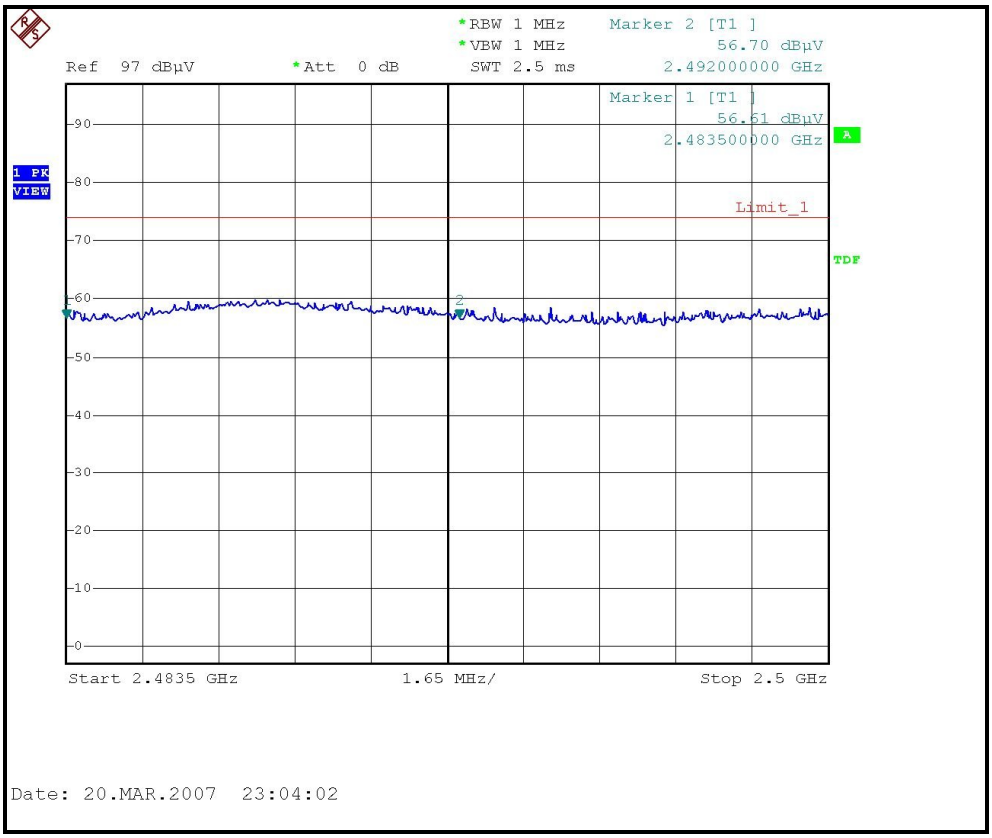


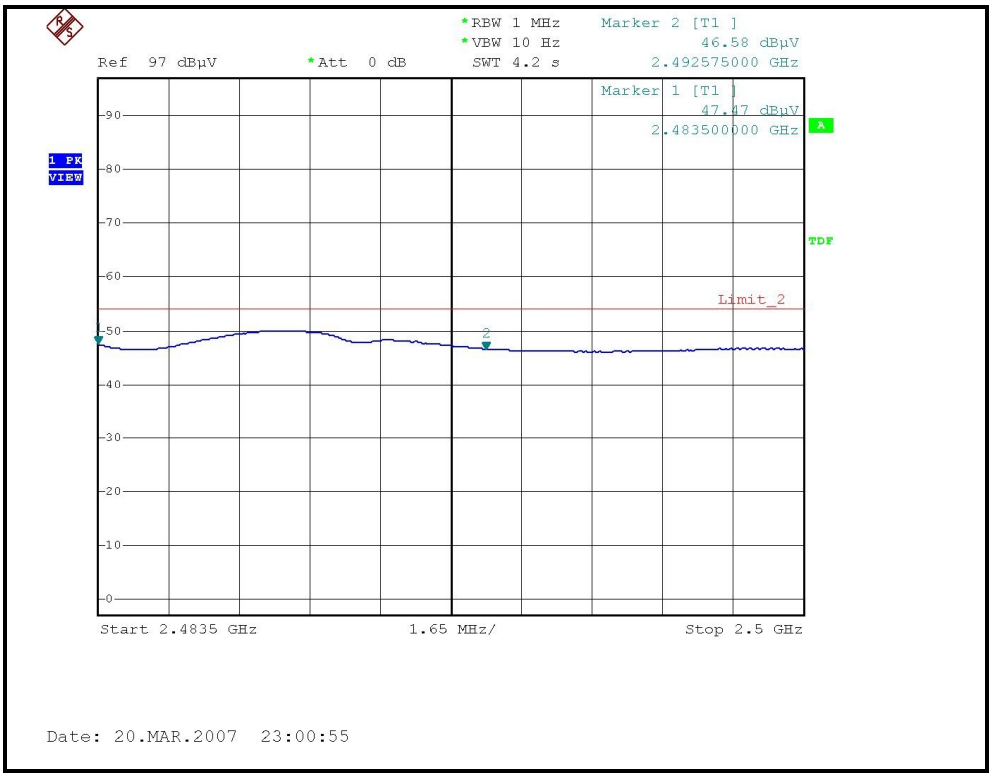
RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)





RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)





802.11g Normal OFDM modulation

MODE	Channel 1	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 6MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

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	2360.00	61.00 PK	74.00	-13.00	1.23 H	124	29.20	31.80
2	2360.00	52.90 AV	54.00	-1.10	1.23 H	124	21.80	31.80
3	2390.00	70.30 PK	74.00	-3.70	1.74 H	314	38.40	31.90
4	2390.00	49.40 AV	54.00	-4.60	1.74 H	314	17.50	31.90
5	*2412.00	103.60 PK			1.74 H	314	71.50	32.00
6	*2412.00	93.70 AV			1.74 H	314	61.70	32.00
7	4824.00	45.00 PK	74.00	-29.00	1.13 H	21	9.10	36.00
8	4824.00	31.80 AV	54.00	-22.20	1.13 H	21	-4.20	36.00
9	7236.00	52.40 PK	74.00	-21.60	1.13 H	5	10.10	42.20
10	7236.00	39.90 AV	54.00	-14.10	1.13 H	5	-2.40	42.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2320.00	55.01 PK	74.00	-18.99	1.56 V	48	23.34	31.67
2	2320.00	48.92 AV	54.00	-5.08	1.56 V	48	17.25	31.67
3	2390.00	73.21 PK	74.00	-0.79	1.63 V	326	41.28	31.93
4	2390.00	53.33 AV	54.00	-0.67	1.63 V	326	21.40	31.93
5	*2412.00	112.20 PK			1.32 V	65	80.18	32.02
6	*2412.00	103.10 AV			1.32 V	65	71.08	32.02
7	4824.00	52.12 PK	74.00	-21.88	1.82 V	25	16.15	35.97
8	4824.00	40.35 AV	54.00	-13.65	1.82 V	25	4.38	35.97
9	7236.00	65.52 PK	74.00	-8.48	1.42 V	21	23.28	42.24
10	7236.00	51.88 AV	54.00	-2.12	1.42 V	21	9.64	42.24

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

MODE	Channel 6	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 6 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

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	2320.00	61.90 PK	74.00	-12.10	1.76 H	312	30.20	31.70
1	2320.00	53.50 AV	54.00	-0.50	1.76 H	312	21.90	31.70
2	*2437.00	107.50 PK			1.65 H	310	75.40	32.10
2	*2437.00	98.20 AV			1.65 H	310	66.10	32.10
3	4874.00	45.80 PK	74.00	-28.20	1.26 H	183	9.70	36.10
3	4874.00	31.70 AV	54.00	-22.30	1.26 H	183	-4.40	36.10
4	7311.00	52.50 PK	74.00	-21.50	1.34 H	143	10.00	42.50
4	7311.00	39.40 AV	54.00	-14.60	1.34 H	143	-3.10	42.50

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	2320.00	59.30 PK	74.00	-14.70	1.32 V	221	27.70	31.70
1	2320.00	48.20 AV	54.00	-5.80	1.32 V	221	16.60	31.70
2	*2437.00	116.80 PK			1.55 V	256	84.70	32.10
2	*2437.00	106.40 AV			1.55 V	256	74.30	32.10
3	4874.00	53.20 PK	74.00	-20.80	1.54 V	24	17.10	36.10
3	4874.00	41.20 AV	54.00	-12.80	1.54 V	24	5.10	36.10
4	7311.00	68.50 PK	74.00	-5.50	1.32 V	65	26.00	42.50
4	7311.00	52.30 AV	54.00	-1.70	1.32 V	65	9.80	42.50

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

MODE	Channel 11	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 6MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 63%RH, 965hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

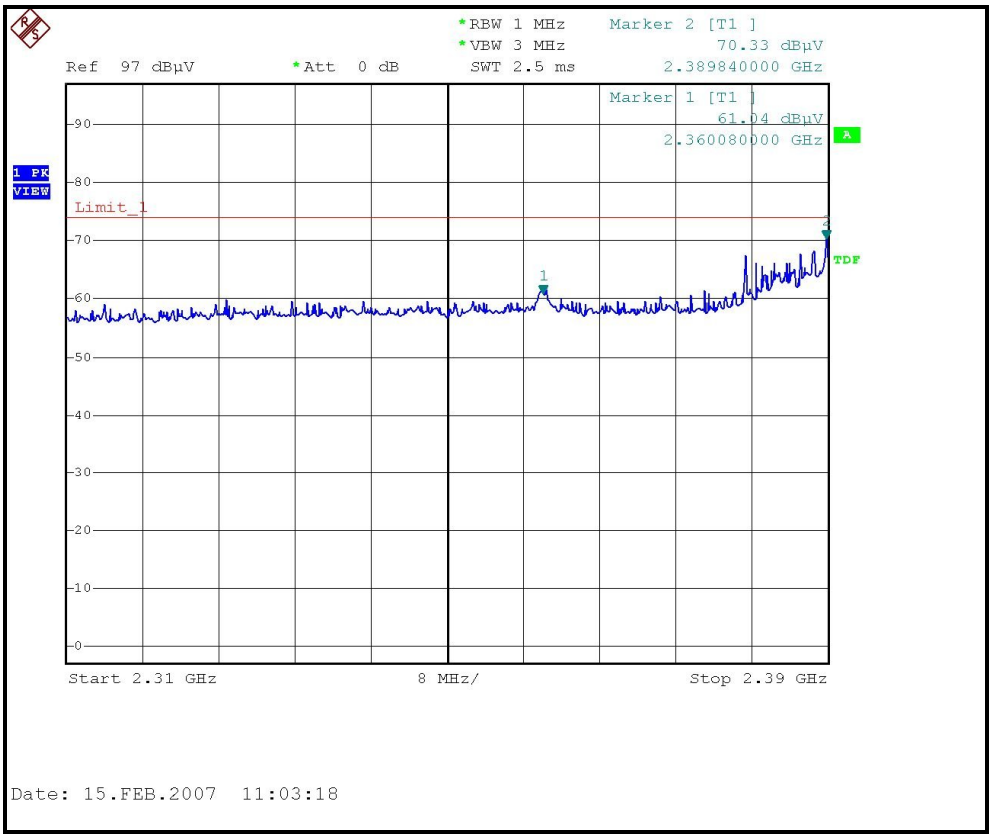
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2320.00	62.00 PK	74.00	-12.00	1.75 H	313	30.30	31.70
1	2320.00	53.00 AV	54.00	-1.00	1.75 H	313	21.30	31.70
2	*2462.00	100.20 PK			1.67 H	312	68.00	32.20
2	*2462.00	92.90 AV			1.67 H	312	60.70	32.20
3	2483.50	66.60 PK	74.00	-7.40	1.67 H	312	34.30	32.30
3	2483.50	49.30 AV	54.00	-4.70	1.67 H	312	17.00	32.30
4	4924.00	45.20 PK	74.00	-28.80	1.42 H	215	9.00	36.20
4	4924.00	31.80 AV	54.00	-22.20	1.42 H	215	-4.40	36.20
5	7386.00	58.90 PK	74.00	-15.10	1.22 H	43	16.10	42.80
5	7386.00	42.00 AV	54.00	-12.00	1.22 H	43	-0.80	42.80

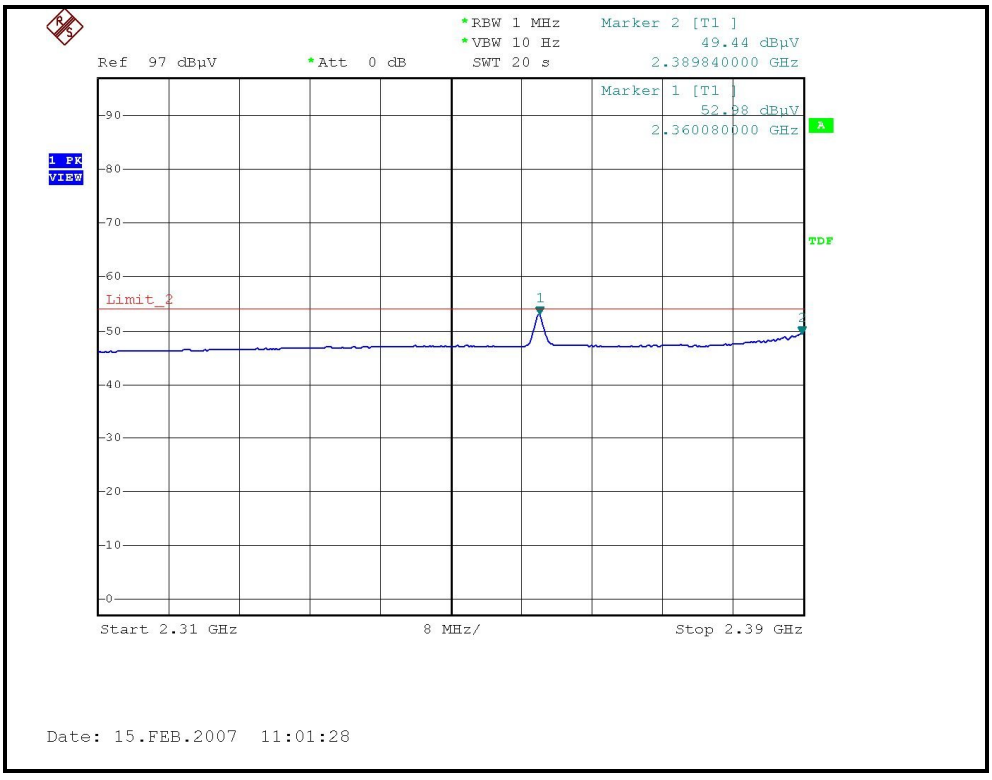
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	2320.00	53.90 PK	74.00	-20.10	1.23 V	35	22.20	31.70
1	2320.00	48.20 AV	54.00	-5.80	1.23 V	35	16.60	31.70
2	*2462.00	107.10 PK			1.58 V	24	74.90	32.20
2	*2462.00	100.00 AV			1.58 V	24	67.80	32.20
3	2483.50	73.10 PK	74.00	-0.90	1.60 V	25	40.80	32.30
3	2483.50	53.20 AV	54.00	-0.80	1.60 V	25	20.90	32.30
4	4924.00	52.20 PK	74.00	-21.80	1.45 V	187	16.00	36.20
4	4924.00	41.20 AV	54.00	-12.80	1.45 V	187	5.10	36.20
5	7386.00	67.50 PK	74.00	-6.50	1.67 V	32	24.70	42.80
5	7386.00	51.70 AV	54.00	-2.30	1.67 V	32	8.90	42.80

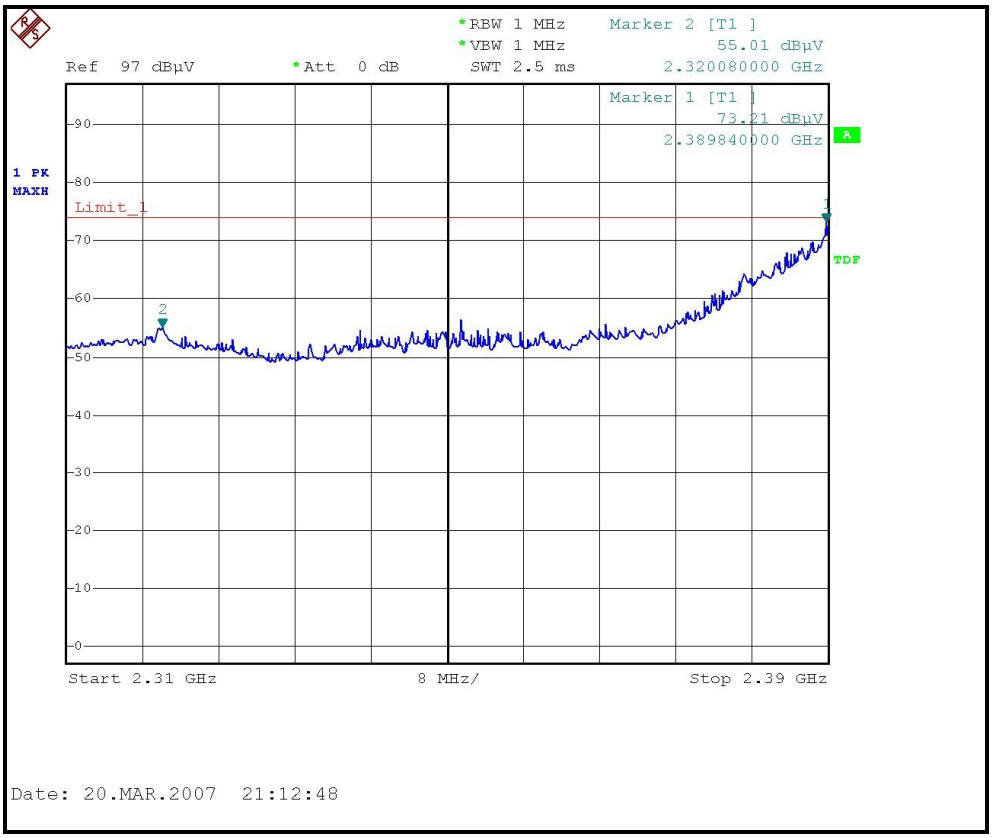
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

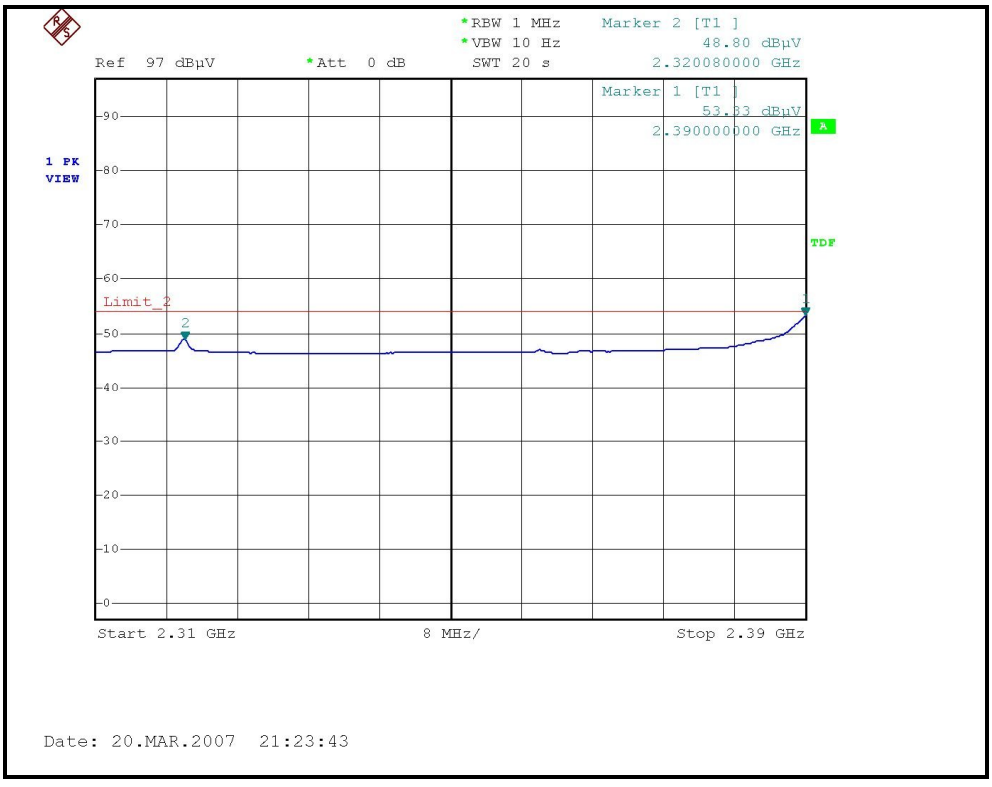
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



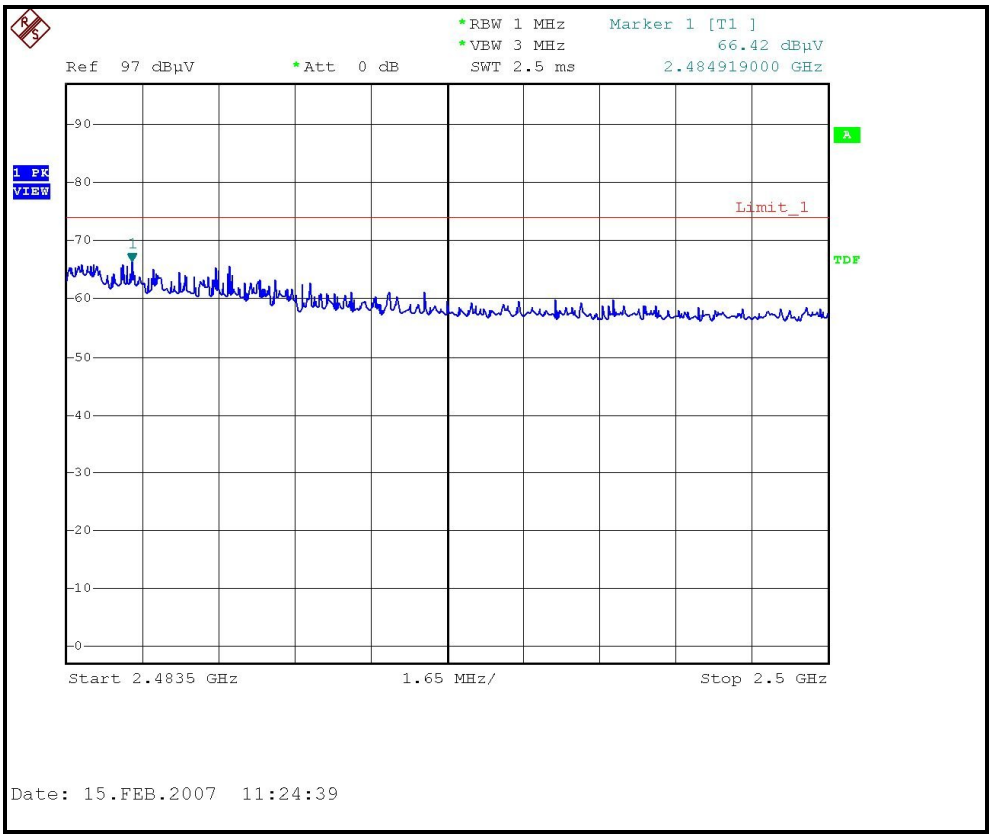


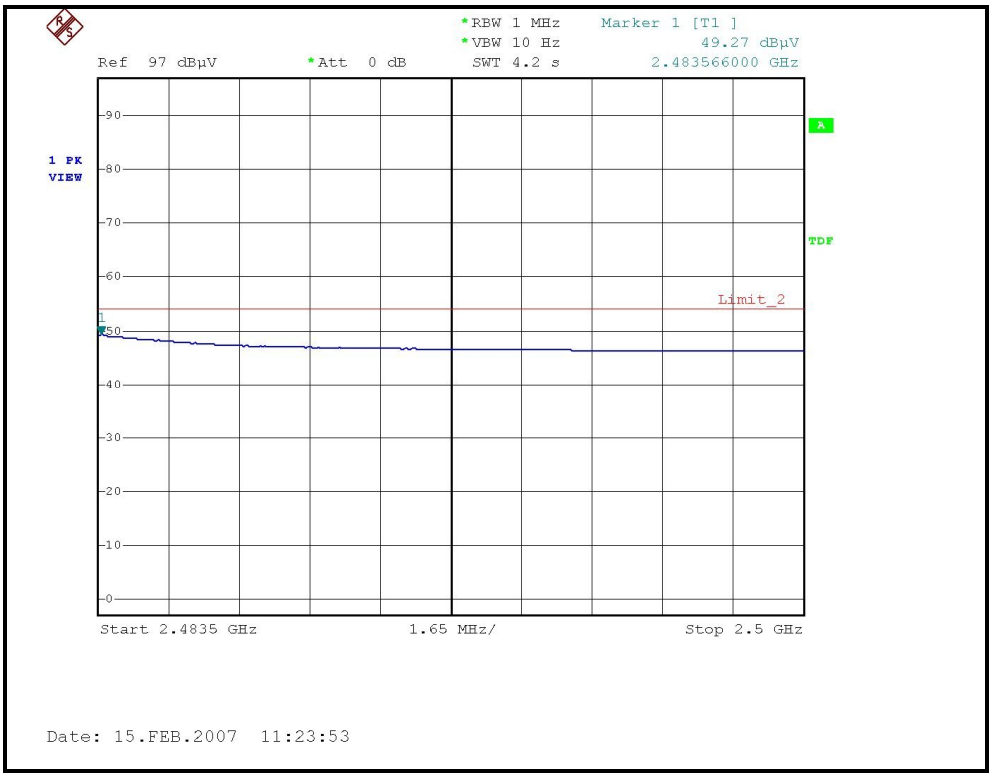
RESTRICTED BANDEDGE (802.11g MODE,CH1, VERTICAL)



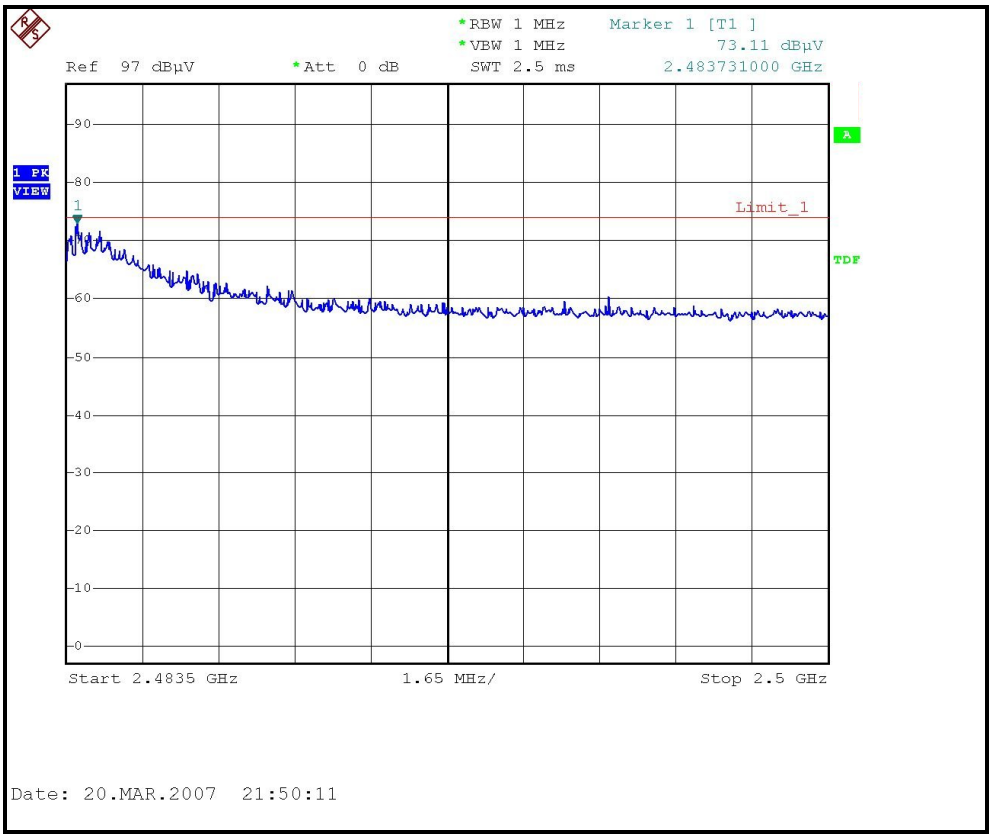


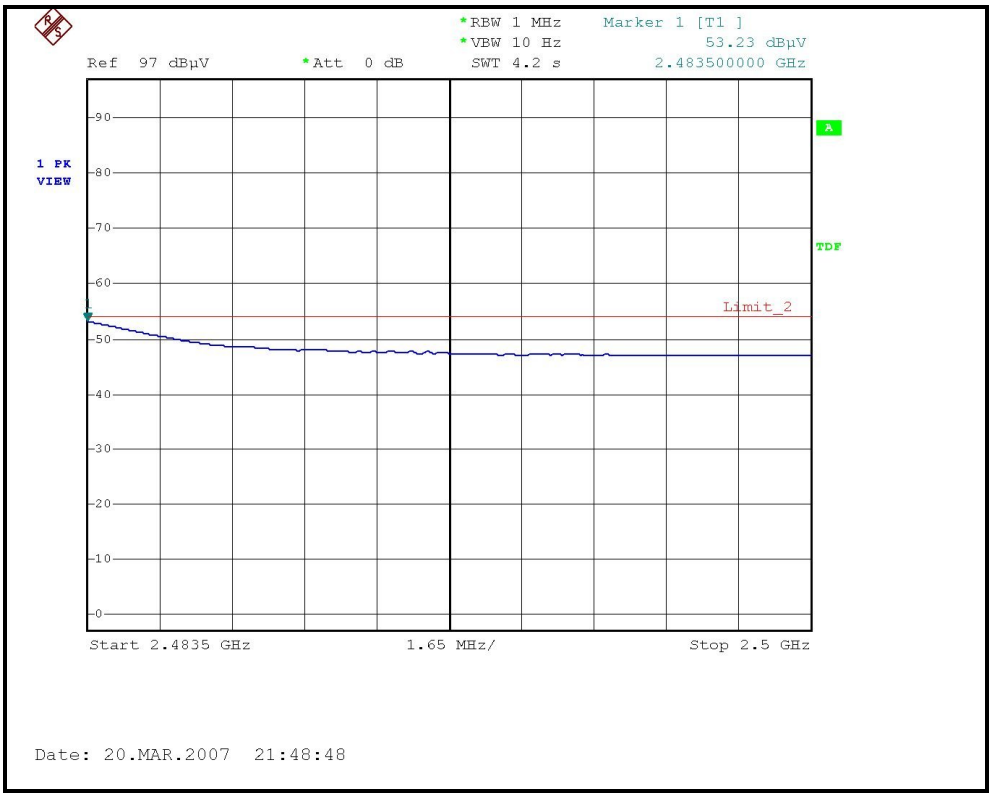
RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)





RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





802.11g Turbo OFDM modulation

MODE	Channel 6	**FREQUENCY RANGE**	1000~25000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION & BANDWIDTH**	Peak (PK) Average (AV) 12MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 965hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

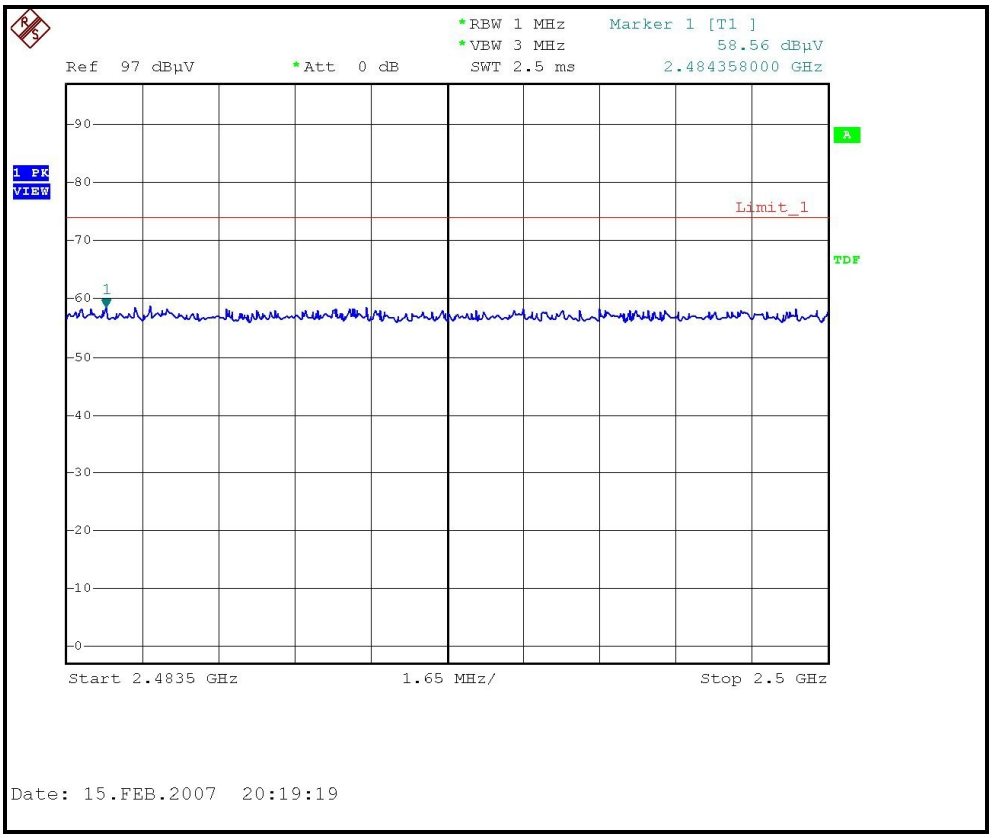
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2320.00	58.20 PK	74.00	-15.80	1.28 H	296	26.50	31.70
1	2320.00	48.70 AV	54.00	-5.30	1.28 H	296	17.00	31.70
2	2390.00	56.60 PK	74.00	-17.40	1.71 H	282	24.70	31.90
2	2390.00	45.40 AV	54.00	-8.60	1.71 H	282	13.50	31.90
3	*2437.00	103.20 PK			1.70 H	294	71.10	32.10
3	*2437.00	92.30 AV			1.70 H	294	60.20	32.10
4	2483.50	58.60 PK	74.00	-15.40	1.69 H	311	26.30	32.30
4	2483.50	46.30 AV	54.00	-7.70	1.69 H	311	14.00	32.30
5	4874.00	46.80 PK	74.00	-27.20	1.03 H	354	10.80	36.10
5	4874.00	31.20 AV	54.00	-22.80	1.03 H	354	-4.80	36.10
6	7311.00	53.70 PK	74.00	-20.30	1.16 H	142	11.20	42.50
6	7311.00	39.70 AV	54.00	-14.30	1.16 H	142	-2.80	42.50

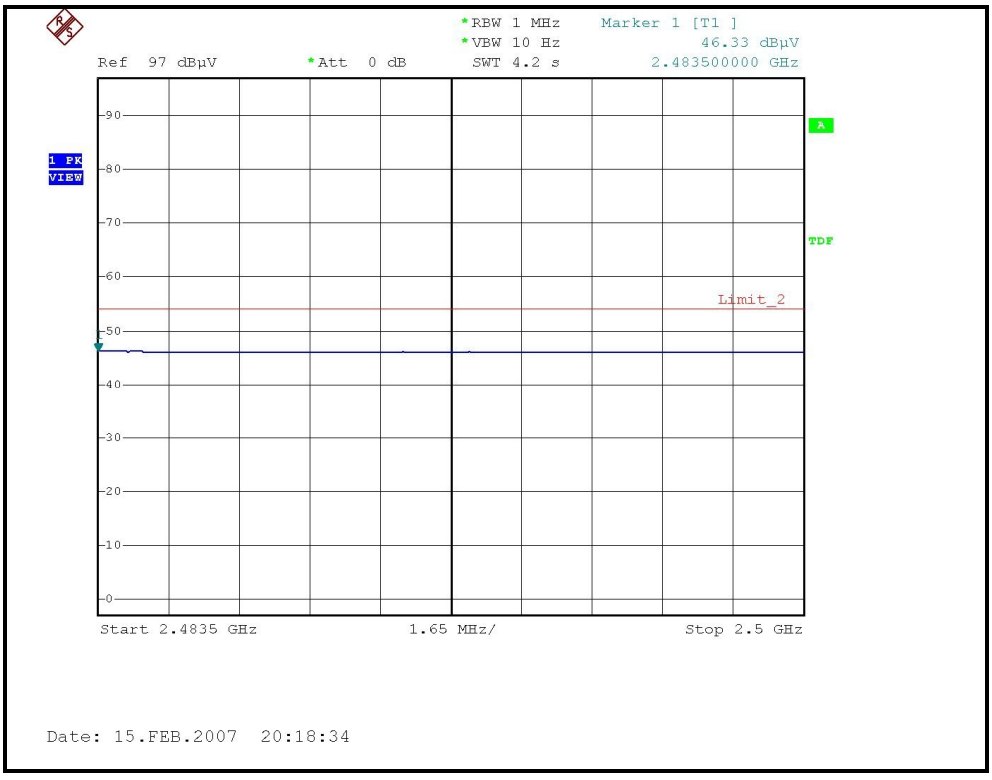
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	2320.00	58.54 PK	74.00	-15.46	1.02 V	7	26.94	31.60
2	2320.00	42.65 AV	54.00	-11.35	1.02 V	7	11.05	31.60
3	2390.00	69.78 PK	74.00	-4.22	1.35 V	62	37.93	31.85
4	2390.00	53.29 AV	54.00	-0.71	1.35 V	62	21.44	31.85
5	*2437.00	111.50 PK			1.68 V	57	79.48	32.02
6	*2437.00	101.90 AV			1.68 V	57	69.88	32.02
7	2483.50	71.69 PK	74.00	-2.31	1.54 V	54	39.50	32.19
8	**2483.50**	**53.62 AV**	**54.00**	**-0.38**	**1.54 V**	**54**	**21.43**	**32.19**
9	4874.00	55.87 PK	74.00	-18.13	1.54 V	245	19.67	36.20
10	4874.00	43.65 AV	54.00	-10.35	1.54 V	245	7.45	36.20
11	7311.00	66.23 PK	74.00	-7.77	1.54 V	24	24.42	41.81
12	7311.00	52.21 AV	54.00	-1.79	1.54 V	24	10.40	41.81

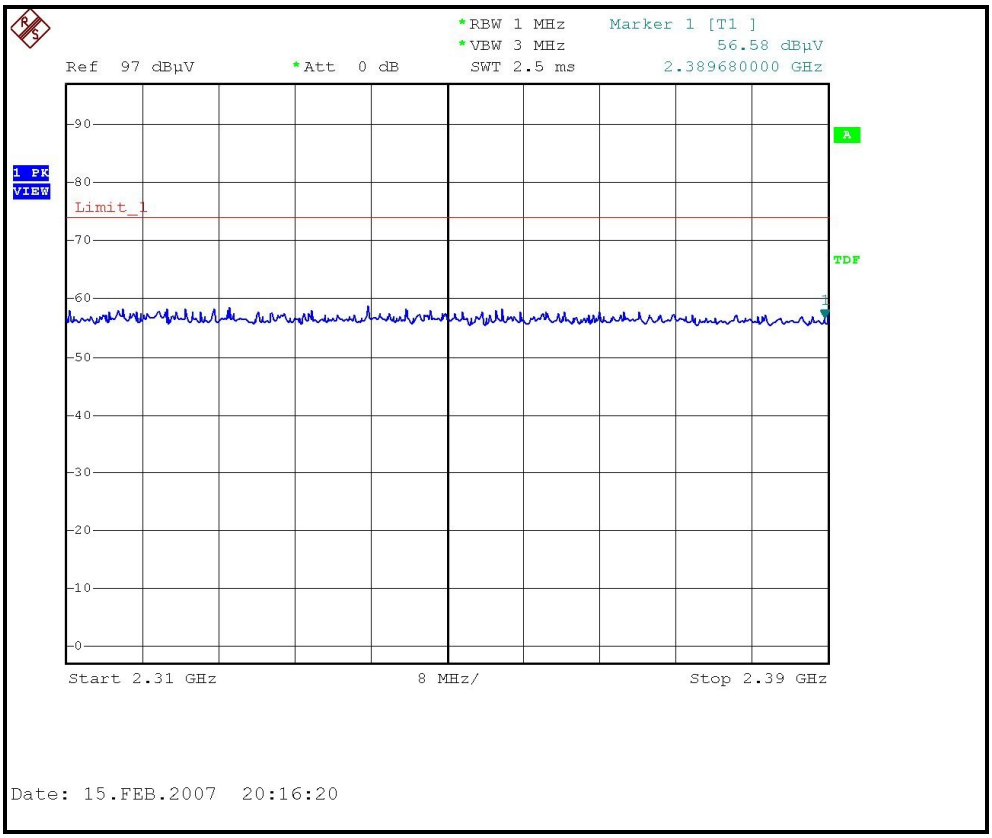
REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247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

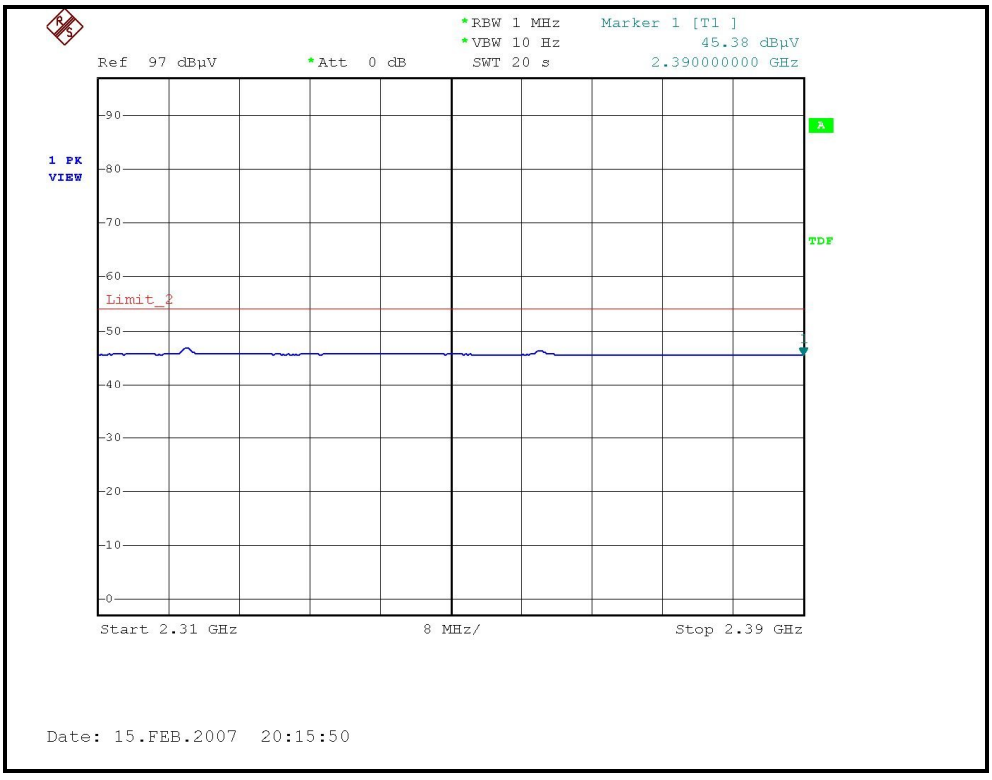
RESTRICTED BANDEDGE (802.11g MODE,CH6, HORIZONTAL)



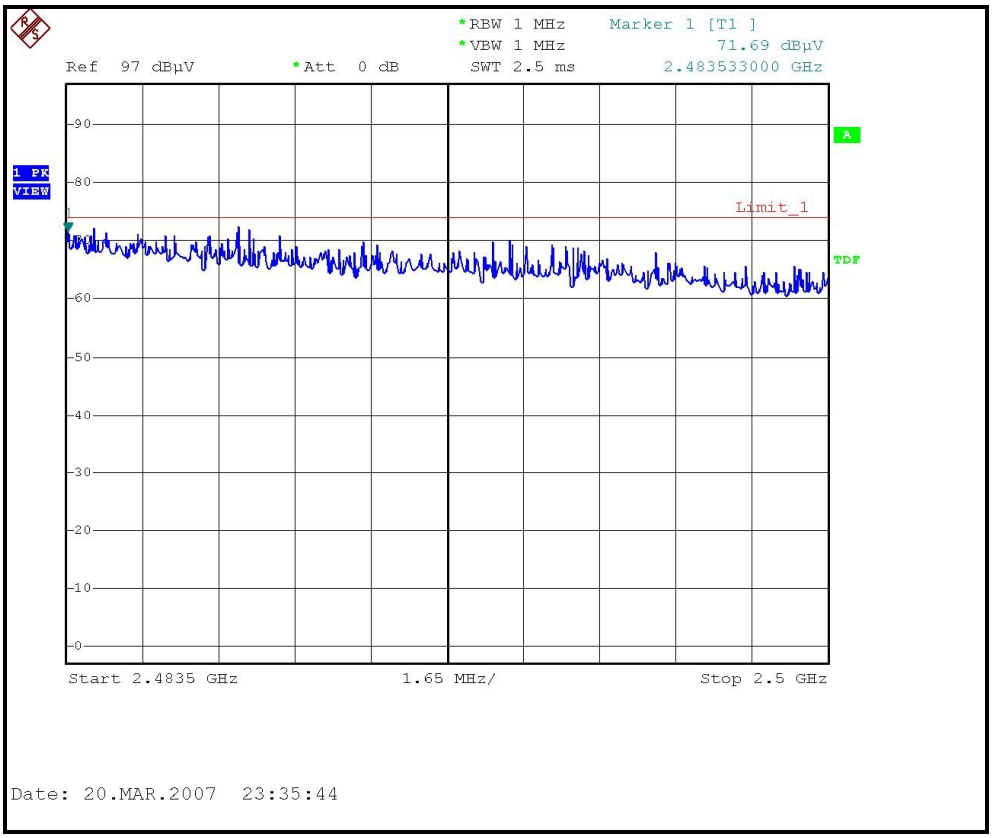


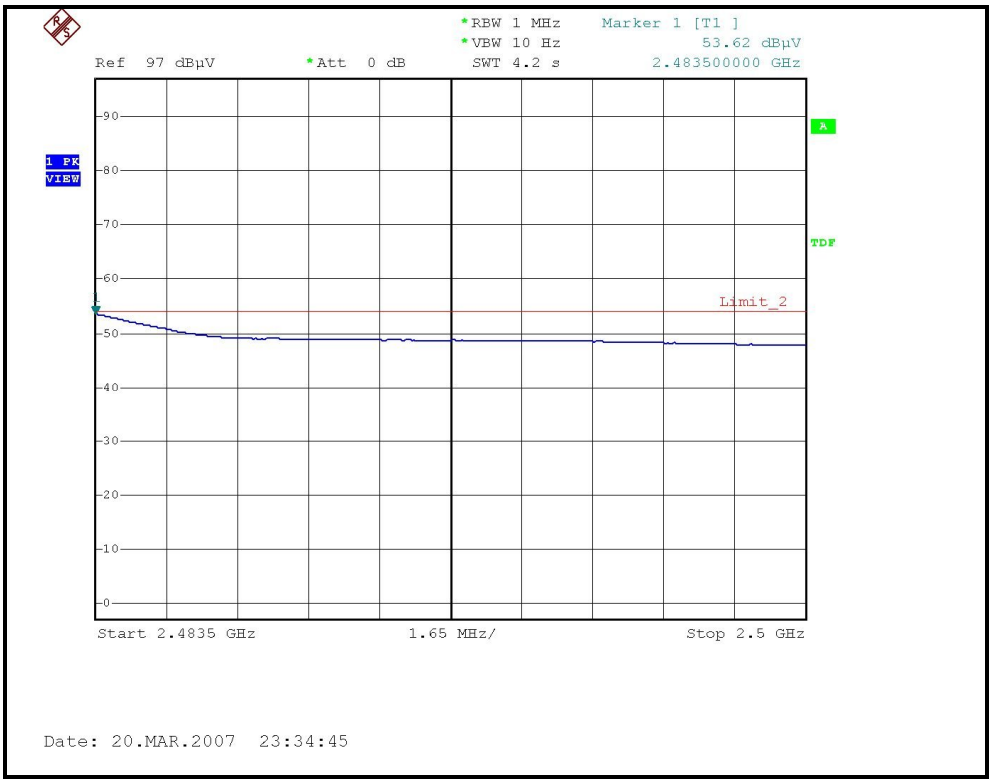
RESTRICTED BANDEDGE (802.11g MODE,CH6, HORIZONTAL)



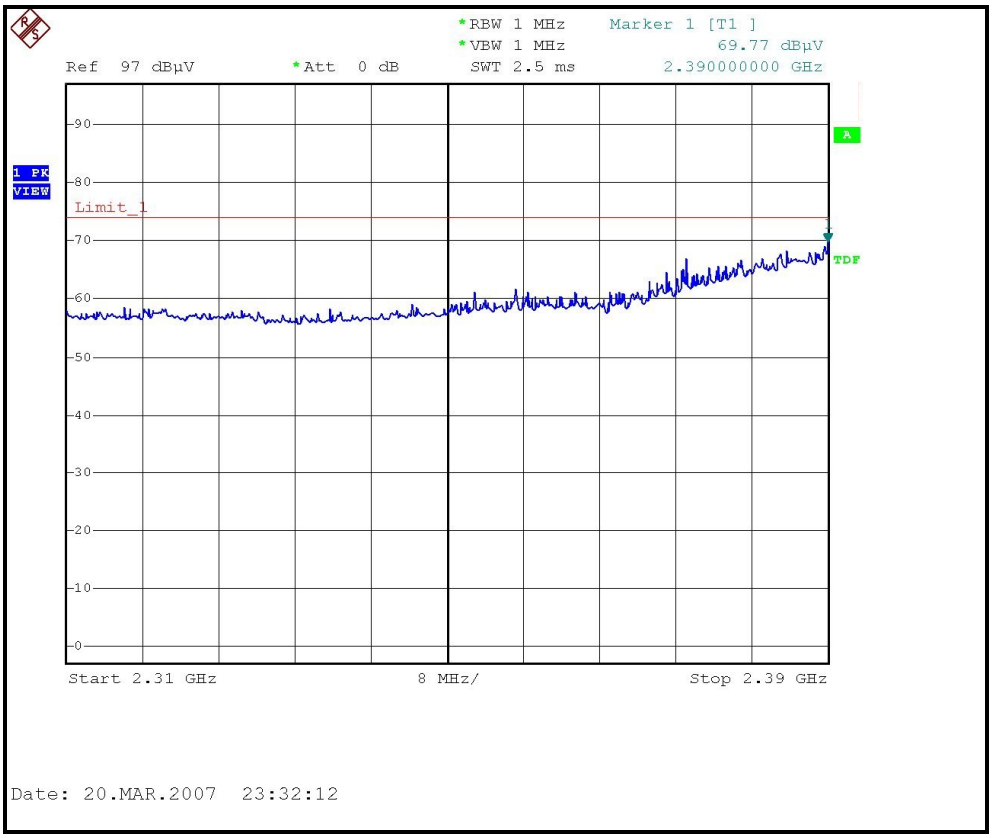


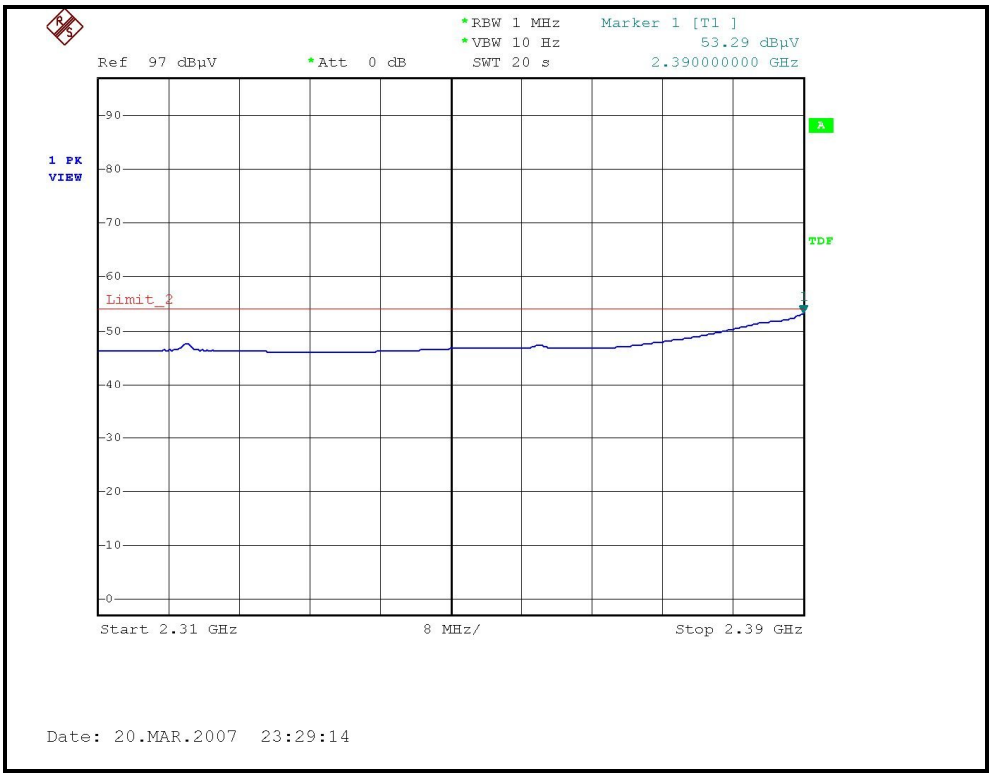
RESTRICTED BANDEDGE (802.11g MODE,CH6, VERTICAL)





RESTRICTED BANDEDGE (802.11g MODE,CH6, VERTICAL)





4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	10037	Aug. 15, 2007

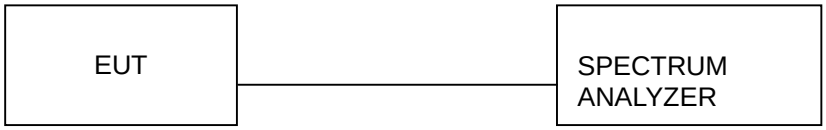
NOTE:

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

4.3.3 TEST PROCEDURE

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

4.3.4 TEST SETUP



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

4.3.5 EUT OPERATING CONDITIONS

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

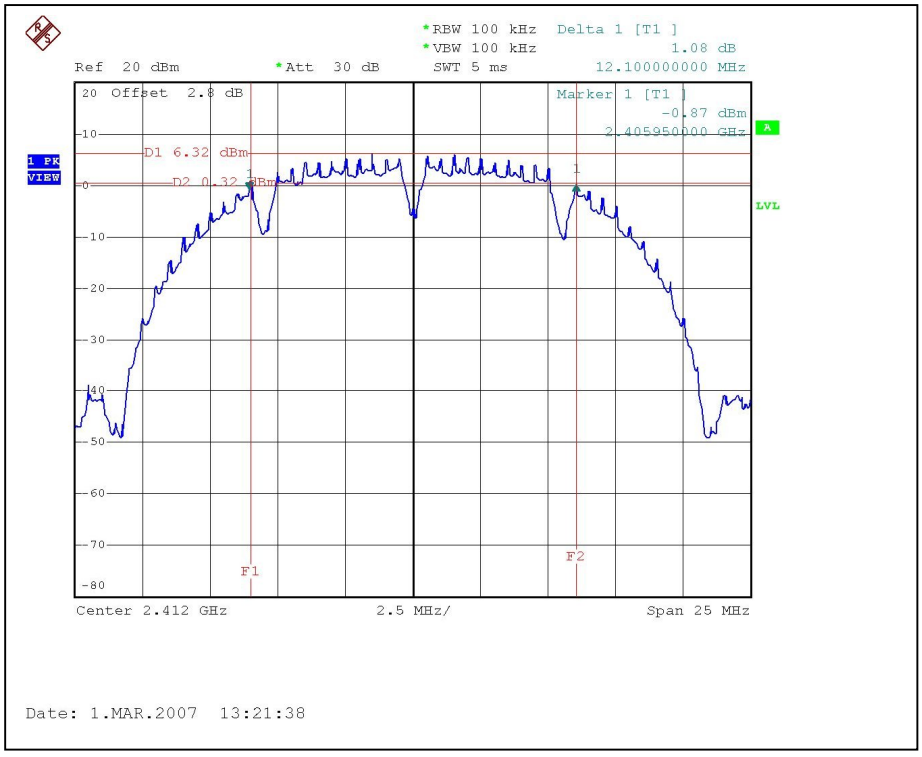
4.3.6 TEST RESULTS –DSSS

802.11b DSSS modulation

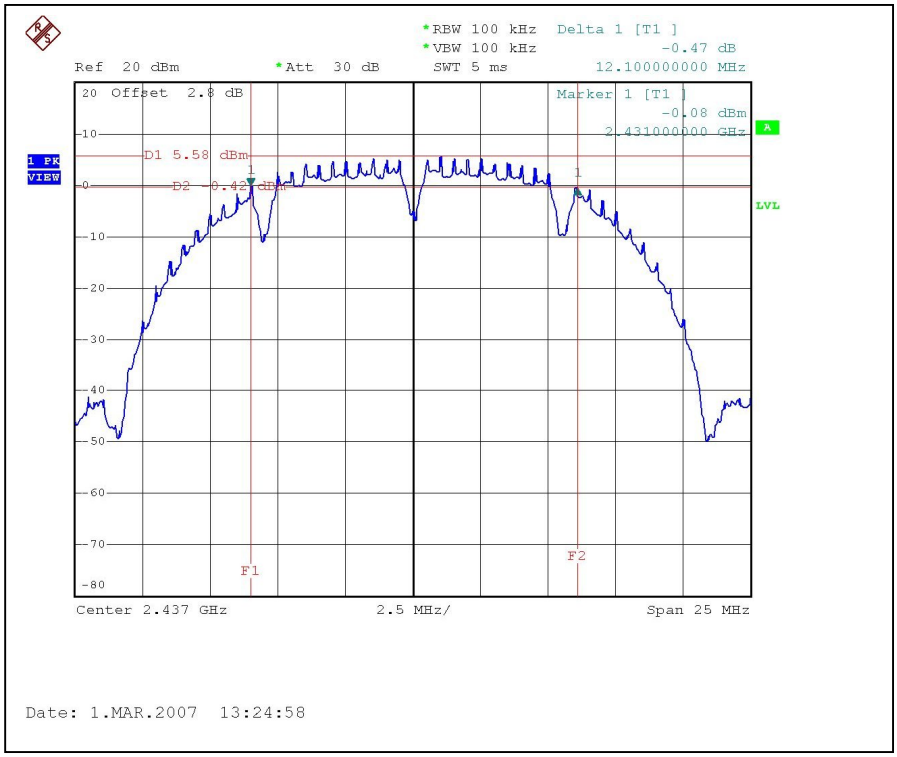
MODULATION TYPE	CCK	**TRANSFER RATE**	1Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	18deg. C, 62%RH, 965hPa
TESTED BY	Tony Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.10	0.5	PASS
6	2437	12.10	0.5	PASS
11	2462	12.15	0.5	PASS

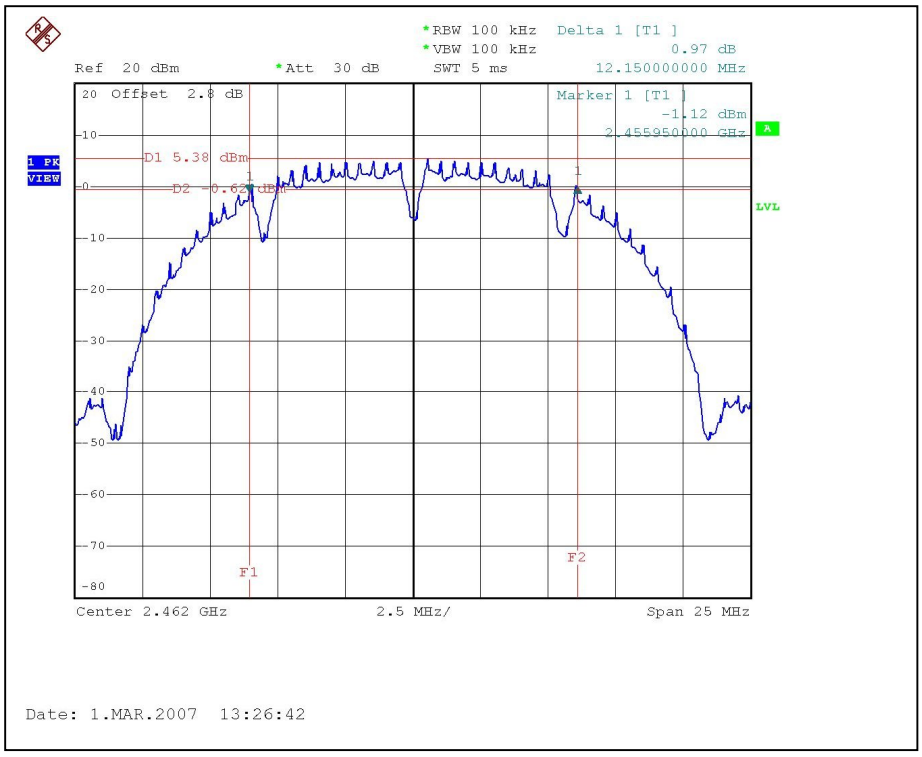
CH1



CH6


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.47 dB
12.100000000 MHz
Ref 20 dBm
*Att 30 dB
20 Offset 2.8 dB
Marker 1 [T1]
-0.08 dBm
2.431000000 GHz
D1 5.58 dBm
D2 -0.42 dBm
1 PK VIEW
LVL
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz
Date: 1.MAR.2007 13:24:58

CH11


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.97 dB
12.150000000 MHz
Ref 20 dBm
*Att 30 dB
20 Offset 2.8 dB
Marker 1 [T1]
-1.12 dBm
2.455950000 GHz
D1 5.38 dBm
D2 -0.62 dBm
1 PK VIEW
LVL
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz
Date: 1.MAR.2007 13:26:42

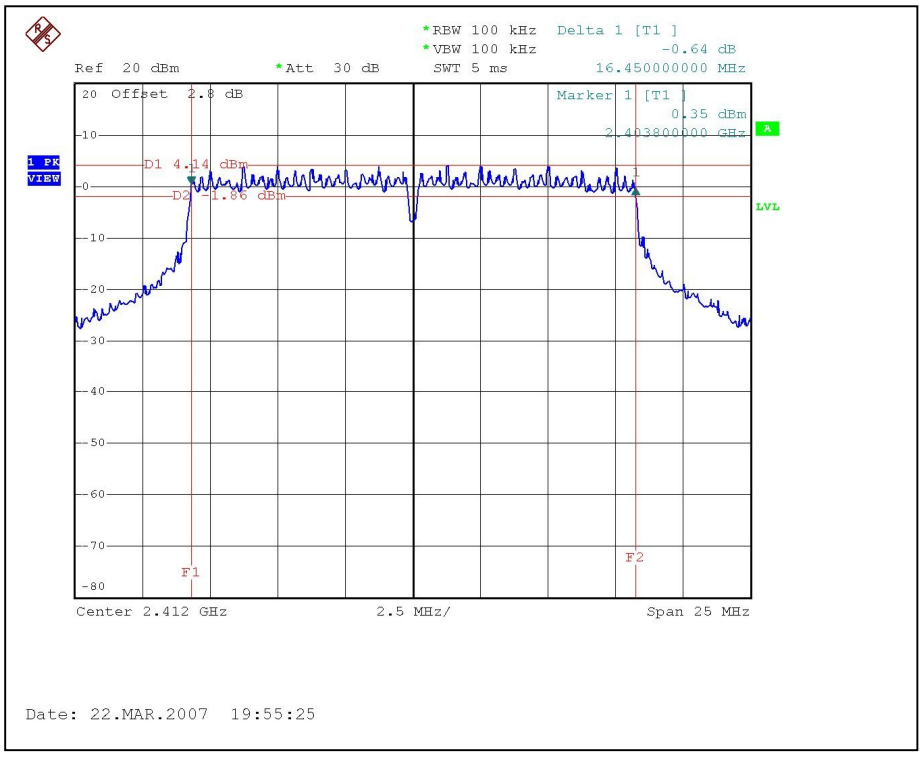
4.3.7 TEST RESULTS-OFDM

802.11g OFDM modulation

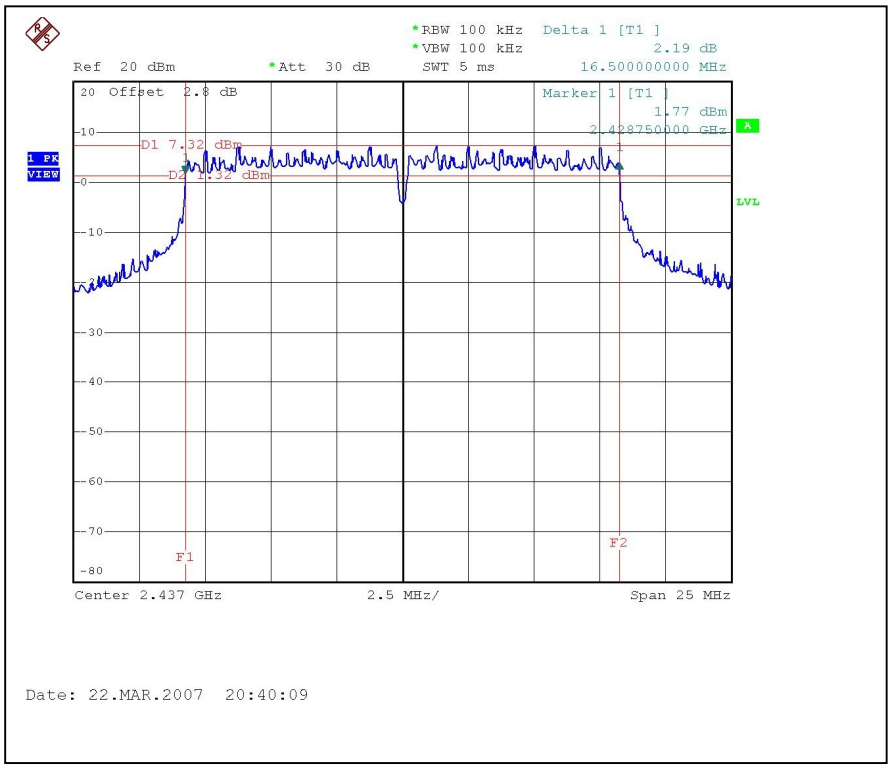
MODULATION TYPE	BPSK	**TRANSFER RATE**	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	18deg. C, 62%RH, 965hPa
TESTED BY	Tony Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.45	0.5	PASS
6	2437	16.50	0.5	PASS
11	2462	16.45	0.5	PASS

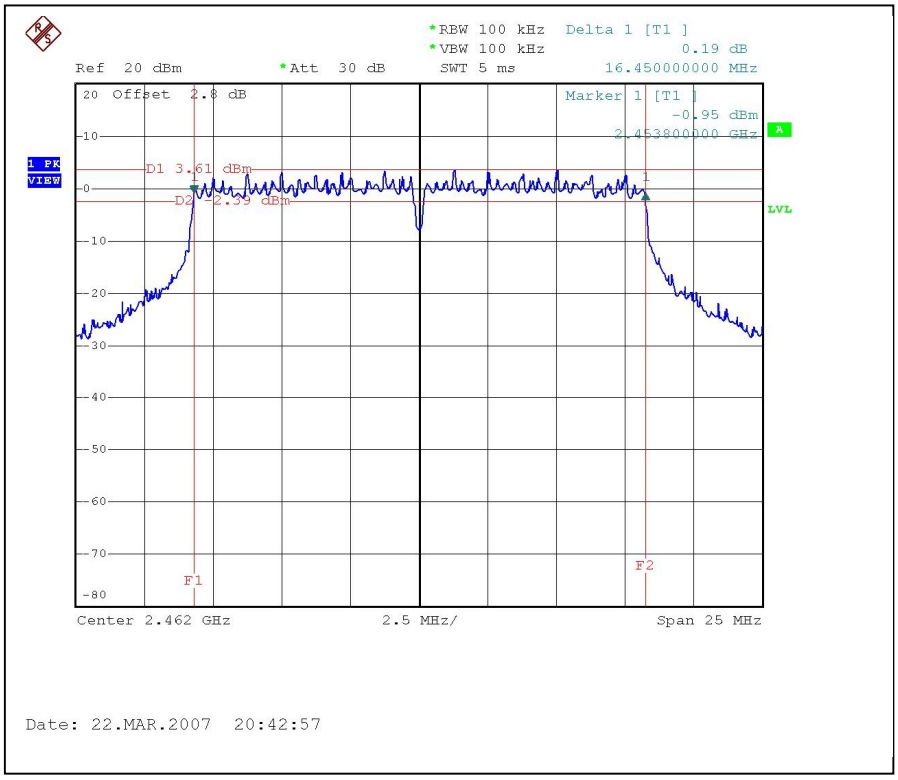
CH1



CH6


*RBW 100 kHz
Delta 1 [T1]
*VBW 100 kHz
2.19 dB
Ref 20 dBm
*Att 30 dB
SWT 5 ms
16.500000000 MHz
20 Offset 2.8 dB
Marker 1 [T1]
1.77 dBm
2.428750000 GHz
D1 7.32 dBm
D2 -2.32 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.437 GHz
2.5 MHz/
Span 25 MHz
Date: 22.MAR.2007 20:40:09

CH11


*RBW 100 kHz
Delta 1 [T1]
*VBW 100 kHz
0.19 dB
Ref 20 dBm
*Att 30 dB
SWT 5 ms
16.450000000 MHz
20 Offset 2.8 dB
Marker 1 [T1]
-0.95 dBm
2.453800000 GHz
D1 3.61 dBm
D2 -2.39 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.462 GHz
2.5 MHz/
Span 25 MHz
Date: 22.MAR.2007 20:42:57