



FCC TEST REPORT

REPORT NO.: RF960427H06
MODEL NO.: 164-R9570
RECEIVED: April 27, 2007
TESTED: April 27 to May 10, 2007
ISSUED: May 11, 2007

APPLICANT: Teradyne Diagnostic Solutions Ltd

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1 CERTIFICATION

PRODUCT : Wireless Card for VCM and VMM
BRAND NAME : TERADNE
MODEL NO. : 164-R9570
TESTED: April 27 to May 10, 2007
APPLICANT : Teradyne Diagnostic Solutions Ltd
TEST ITEM: ENGINEERING SAMPLE
STANDARDS : 47 CFR Part 15, Subpart C (Section 15.247)
ANSI C63.4-2003

The above equipment (Model: 164-R9570) 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:** May 11, 2007
(Claire Kuan)

TECHNICAL ACCEPTANCE : Hank Chung , **DATE:** May 11, 2007
Responsible for RF (Hank Chung)

APPROVED BY : May Chen , **DATE:** May 11, 2007
(May Chen, 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 -15.02 dB at 0.209 MHz |
| 15.247(a)(2) | Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz | PASS | Meet the requirement of limit |
| 15.247(b) | Maximum Peak Output Power Limit: max. 30dBm | PASS | Meet the requirement of limit |
| 15.247(c) | Transmitter Radiated Emissions Limit: Table 15.209 | PASS | Meet the requirement of limit Minimum passing margin is -1.0 dB at 4874.00 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 | Wireless Card for VCM and VMM |
| MODEL NO. | 164-R9570 |
| FCC ID | VBD-35540121 |
| POWER SUPPLY | DC 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 |
| FREQUENCY RANGE | 2412MHz ~ 2462MHz |
| NUMBER OF CHANNEL | 11 |
| CHANNEL SPACING | 5MHz |
| OUTPUT POWER | 802.11b: 57.544mW 802.11g: 39.811mW |
| ANTENNA TYPE | Ceramic Antenna without connector, Gain: 2dBi |
| DATA CABLE | NA |
| INTERFACE | PCMCIA |
| ASSOCIATED DEVICES | NA |

NOTE:

1. The EUT, operates in the 2.4GHz frequency range, lets you connect IEEE 802.11g or IEEE 802.11b devices to the network. With its high-speed data transmissions of up to 54Mbps.
2. 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 | | |

3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

| EUT configure mode | Applicable to | | | | Description |
|--------------------------|---------------|-------|-------|------|-------------|
| | PLC | RE<1G | RE≥1G | APCM | |
| - | √ | √ | √ | √ | 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) |
|---------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11b | 1 to 11 | 1 | DSSS | CCK | 1 |

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) |
|---------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11b | 1 to 11 | 1 | DSSS | CCK | 1 |

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 |

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 |



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 |



3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless Card for VCM and VMM. 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

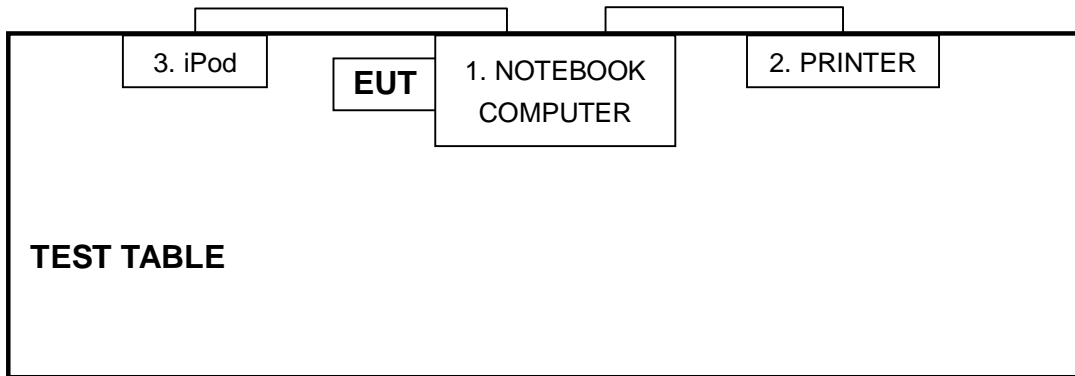
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| No. | Product | Brand | Model No. | Serial No. | FCC ID |
|-----|----------------------|-------|-----------|-------------|--------|
| 1 | NOTEBOOK COMPUTER | ASUS | A2400H | 49NG038481 | DoC |
| 2 | PRINTER | EPSON | LQ-300+ | DCGY017082 | DoC |
| 3 | iPod | Apple | A1059 | 4W50577SPS9 | DoC |

| No. | Signal cable description |
|-----|--|
| 1 | NA |
| 2 | 1.8 m foil shielded wire, terminated with USB connector via drain wire, with core. |
| 3 | 1.0 m foil shielded wire, terminated with USB connector via drain wire, with core. |

Note: 1. All power cords of the above support units are unshielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST



4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. 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

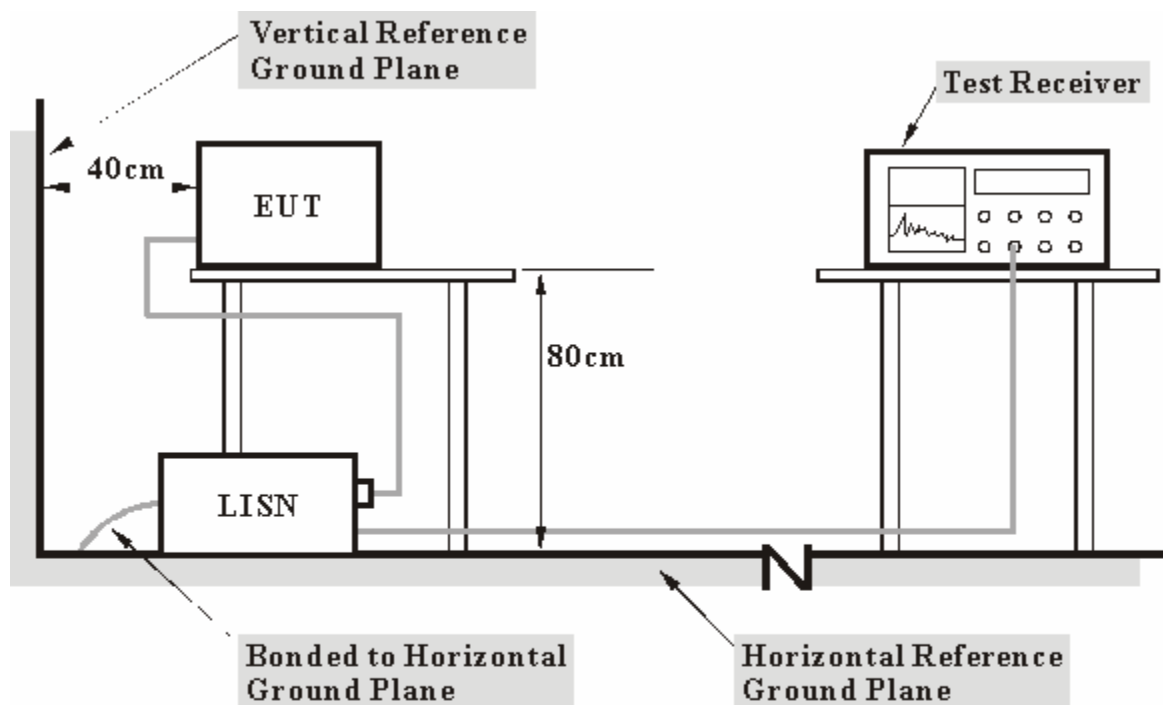
| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED UNTIL |
|--|-----------------|-------------|------------------|
| Test Receiver | ESCS 30 | 847124/029 | Mar. 28, 2008 |
| Line-Impedance Stabilization Network(for EUT) | ENV-216 | 100071 | Nov. 26, 2007 |
| Line-Impedance Stabilization Network(for Peripheral) | ESH3-Z5 | 848773/004 | Oct. 26, 2007 |
| RF Cable (JETBAO) | RG233/U | Cable_CB_01 | Dec. 09, 2007 |
| Terminator | 50 | 2 | 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. B.
 3. The VCCI Con B Registration No. is C-2193.

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 (AMIN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

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

4.1.5 EUT OPERATING CONDITIONS

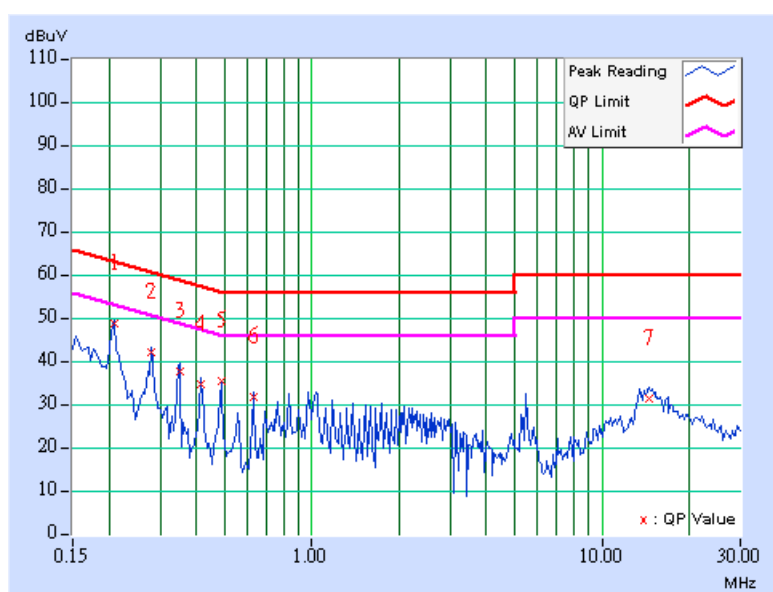
- a. Connect the EUT with the support unit 1 (Notebook computer) and placed it on the testing table.
- b. The support unit 1 (Notebook computer) ran a test program “Marvell RF tool” to enable EUT under transmission condition continuously at specific channel frequency.
- c. The support unit 1 (Notebook computer) sends “H” messages to printer, then printer prints them on paper.

4.1.6 TEST RESULTS

| | | | |
|---------------------------------|-------------------------|----------------------|-----------|
| MODULATION TYPE | CCK | CHANNEL | Channel 1 |
| TEST MODE | Mode 1 | 6dB BANDWIDTH | 9 kHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | TRANSFER RATE | 1Mbps |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 60%RH, 961hPa | PHASE | Line (L) |
| TESTED BY | Moris Lin | | |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value | | Emission Level | | Limit | | Margin | |
|----|----------------|-------------------------|---------------|-----|----------------|-----|-----------|-------|--------|-----|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.209 | 0.40 | 47.84 | - | 48.24 | - | 63.26 | 53.26 | -15.02 | - |
| 2 | 0.279 | 0.40 | 41.06 | - | 41.46 | - | 60.85 | 50.85 | -19.39 | - |
| 3 | 0.349 | 0.40 | 36.65 | - | 37.05 | - | 58.98 | 48.98 | -21.93 | - |
| 4 | 0.416 | 0.40 | 33.74 | - | 34.14 | - | 57.54 | 47.54 | -23.40 | - |
| 5 | 0.486 | 0.40 | 34.43 | - | 34.83 | - | 56.24 | 46.24 | -21.41 | - |
| 6 | 0.627 | 0.40 | 30.71 | - | 31.11 | - | 56.00 | 46.00 | -24.89 | - |
| 7 | 14.586 | 1.08 | 30.31 | - | 31.39 | - | 60.00 | 50.00 | -28.61 | - |

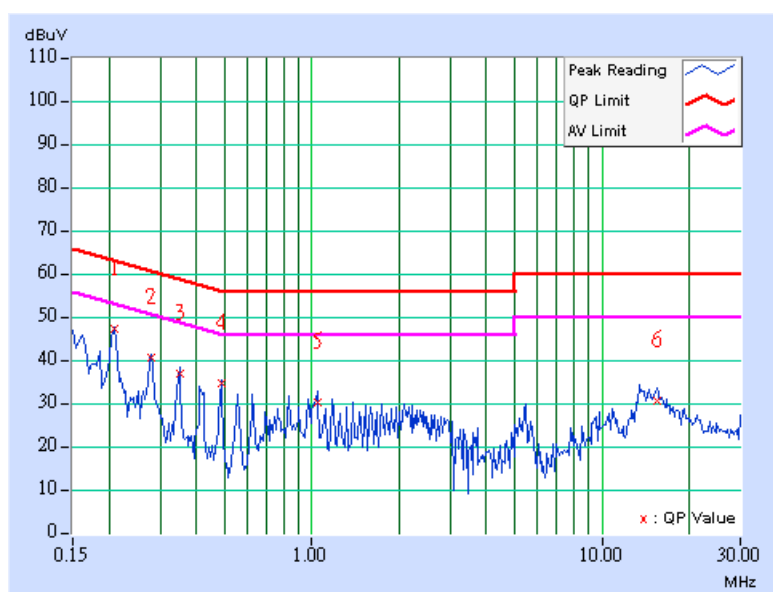
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value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



| | | | |
|---------------------------------|-------------------------|----------------------|-------------|
| MODULATION TYPE | CCK | CHANNEL | Channel 1 |
| TEST MODE | Mode 1 | 6dB BANDWIDTH | 9 kHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | TRANSFER RATE | 1Mbps |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 60%RH, 961hPa | PHASE | Neutral (N) |
| TESTED BY | Moris Lin | | |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value | | Emission Level | | Limit | | Margin | |
|----|----------------|-------------------------|---------------|-----|----------------|-----|-----------|-------|--------|-----|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.209 | 0.20 | 46.33 | - | 46.53 | - | 63.26 | 53.26 | -16.73 | - |
| 2 | 0.279 | 0.20 | 39.51 | - | 39.71 | - | 60.85 | 50.85 | -21.14 | - |
| 3 | 0.349 | 0.20 | 35.66 | - | 35.86 | - | 58.98 | 48.98 | -23.12 | - |
| 4 | 0.486 | 0.21 | 33.60 | - | 33.81 | - | 56.24 | 46.24 | -22.42 | - |
| 5 | 1.045 | 0.30 | 29.16 | - | 29.46 | - | 56.00 | 46.00 | -26.54 | - |
| 6 | 15.412 | 1.21 | 29.62 | - | 30.83 | - | 60.00 | 50.00 | -29.17 | - |

- 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 |

8. Loop antenna was used for all emissions below 30 MHz.

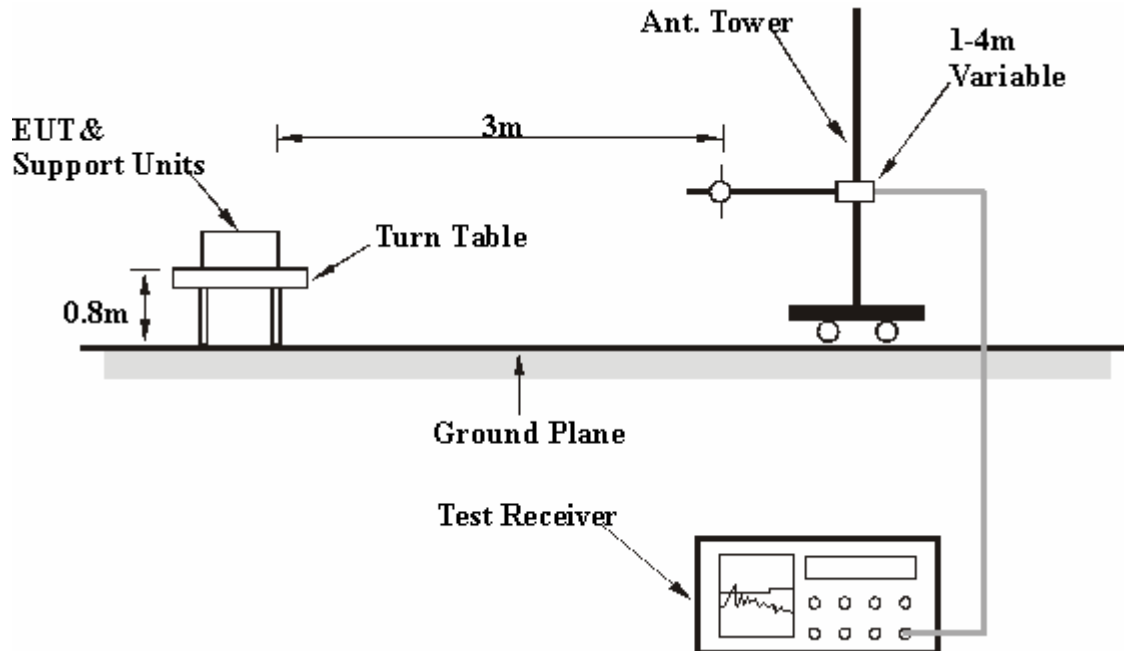
4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

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

- a. Connect the EUT with the support unit 1 (Notebook computer) and placed it on the testing table.
- b. The support unit 1 (Notebook computer) ran a test program “Marvell RF tool” to enable EUT under transmission condition continuously at specific channel frequency.
- c. The support unit 1 (Notebook computer) sends “H” messages to printer, then printer prints them on paper.



4.2.6 TEST RESULTS

Below 1GHz Worst-Case Data

| | | | |
|---------------------------------|-------------------------|--------------------------|--------------------|
| MODULATION TYPE | CCK | CHANNEL | Channel 1 |
| TEST MODE | Mode 1 | FREQUENCY RANGE | 30-1000 MHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | TRANSFER RATE | 1Mbps |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 65%RH, 961hPa | DETECTOR FUNCTION | Quasi-Peak, 120kHz |
| TESTED BY | Phoenix 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 | 80.00 | 18.56 QP | 40.00 | -21.44 | 1.40 H | 53 | 8.42 | 10.14 |
| 2 | 200.02 | 22.57 QP | 43.50 | -20.93 | 1.66 H | 327 | 10.97 | 11.60 |
| 3 | 333.73 | 26.68 QP | 46.00 | -19.32 | 1.26 H | 87 | 9.48 | 17.20 |
| 4 | 584.70 | 30.73 QP | 46.00 | -15.27 | 1.64 H | 253 | 6.63 | 24.10 |
| 5 | 701.99 | 31.18 QP | 46.00 | -14.82 | 1.11 H | 179 | 5.32 | 25.86 |
| 6 | 782.86 | 29.42 QP | 46.00 | -16.58 | 1.13 H | 131 | 1.93 | 27.49 |

| 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 | 57.21 | 30.06 QP | 40.00 | -9.94 | 1.00 V | 45 | 15.96 | 14.10 |
| 2 | 80.00 | 23.16 QP | 40.00 | -16.84 | 1.00 V | 164 | 13.02 | 10.14 |
| 3 | 200.00 | 24.15 QP | 43.50 | -19.35 | 1.00 V | 88 | 12.55 | 11.60 |
| 4 | 333.73 | 23.62 QP | 46.00 | -22.38 | 1.00 V | 165 | 6.42 | 17.20 |
| 5 | 584.69 | 35.01 QP | 46.00 | -10.99 | 1.00 V | 329 | 10.91 | 24.10 |
| 6 | 701.10 | 36.11 QP | 46.00 | -9.89 | 1.16 V | 21 | 10.28 | 25.83 |

- 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.

4.2.7 TEST RESULTS –DSSS

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, 65%RH, 961hPa | TESTED BY | Phoenix 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 | 2375.20 | 57.60 PK | 74.00 | -16.40 | 1.47 H | 79 | 27.27 | 30.33 |
| 2 | 2375.20 | 47.30 AV | 54.00 | -6.70 | 1.47 H | 79 | 16.97 | 30.33 |
| 3 | *2412.00 | 104.30 PK | | | 2.01 H | 85 | 73.81 | 30.49 |
| 4 | *2412.00 | 98.80 AV | | | 2.01 H | 85 | 68.31 | 30.49 |
| 5 | 4824.00 | 49.60 PK | 74.00 | -24.40 | 1.33 H | 350 | 13.91 | 35.69 |
| 6 | 4824.00 | 43.60 AV | 54.00 | -10.40 | 1.33 H | 350 | 7.91 | 35.69 |
| 7 | 7236.00 | 53.30 PK | 74.00 | -20.70 | 1.65 H | 177 | 11.06 | 42.24 |
| 8 | 7236.00 | 40.50 AV | 54.00 | -13.50 | 1.65 H | 177 | -1.74 | 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 | 2375.20 | 58.00 PK | 74.00 | -16.00 | 1.24 V | 287 | 27.67 | 30.33 |
| 2 | 2375.20 | 47.70 AV | 54.00 | -6.30 | 1.24 V | 287 | 17.37 | 30.33 |
| 3 | *2412.00 | 102.60 PK | | | 1.17 V | 336 | 72.11 | 30.49 |
| 4 | *2412.00 | 97.20 AV | | | 1.17 V | 336 | 66.71 | 30.49 |
| 5 | 4824.00 | 55.30 PK | 74.00 | -18.70 | 1.45 V | 73 | 19.61 | 35.69 |
| 6 | 4824.00 | 52.90 AV | 54.00 | -1.10 | 1.45 V | 73 | 17.21 | 35.69 |
| 7 | 7236.00 | 53.50 PK | 74.00 | -20.50 | 1.49 V | 74 | 11.26 | 42.24 |
| 8 | 7236.00 | 41.90 AV | 54.00 | -12.10 | 1.49 V | 74 | -0.34 | 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, 65%RH, 961hPa | TESTED BY | Phoenix 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 | *2437.00 | 104.10 PK | | | 1.32 H | 247 | 73.49 | 30.61 |
| 2 | *2437.00 | 96.60 AV | | | 1.32 H | 247 | 65.99 | 30.61 |
| 3 | 4874.00 | 55.60 PK | 74.00 | -18.40 | 1.36 H | 59 | 19.80 | 35.80 |
| 4 | 4874.00 | 53.00 AV | 54.00 | -1.00 | 1.36 H | 59 | 17.20 | 35.80 |
| 5 | 7311.00 | 53.30 PK | 74.00 | -20.70 | 1.44 H | 12 | 10.78 | 42.52 |
| 6 | 7311.00 | 40.00 AV | 54.00 | -14.00 | 1.44 H | 12 | -2.52 | 42.52 |

| 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 | *2437.00 | 102.80 PK | | | 1.21 V | 285 | 72.19 | 30.61 |
| 2 | *2437.00 | 97.30 AV | | | 1.21 V | 285 | 66.69 | 30.61 |
| 3 | 4874.00 | 55.80 PK | 74.00 | -18.20 | 1.56 V | 113 | 20.00 | 35.80 |
| 4 | 4874.00 | 53.00 AV | 54.00 | -1.00 | 1.56 V | 113 | 17.20 | 35.80 |
| 5 | 7311.00 | 53.50 PK | 74.00 | -20.50 | 1.10 V | 56 | 10.98 | 42.52 |
| 6 | 7311.00 | 41.70 AV | 54.00 | -12.30 | 1.10 V | 56 | -0.82 | 42.52 |

- 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, 65%RH, 961hPa | TESTED BY | Phoenix Huang |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

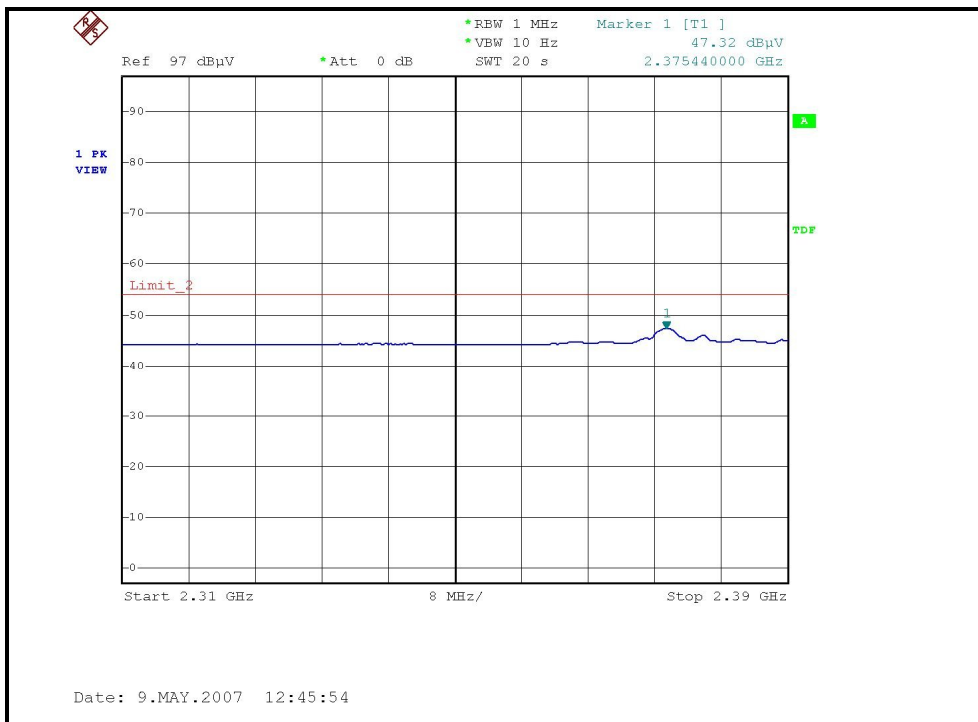
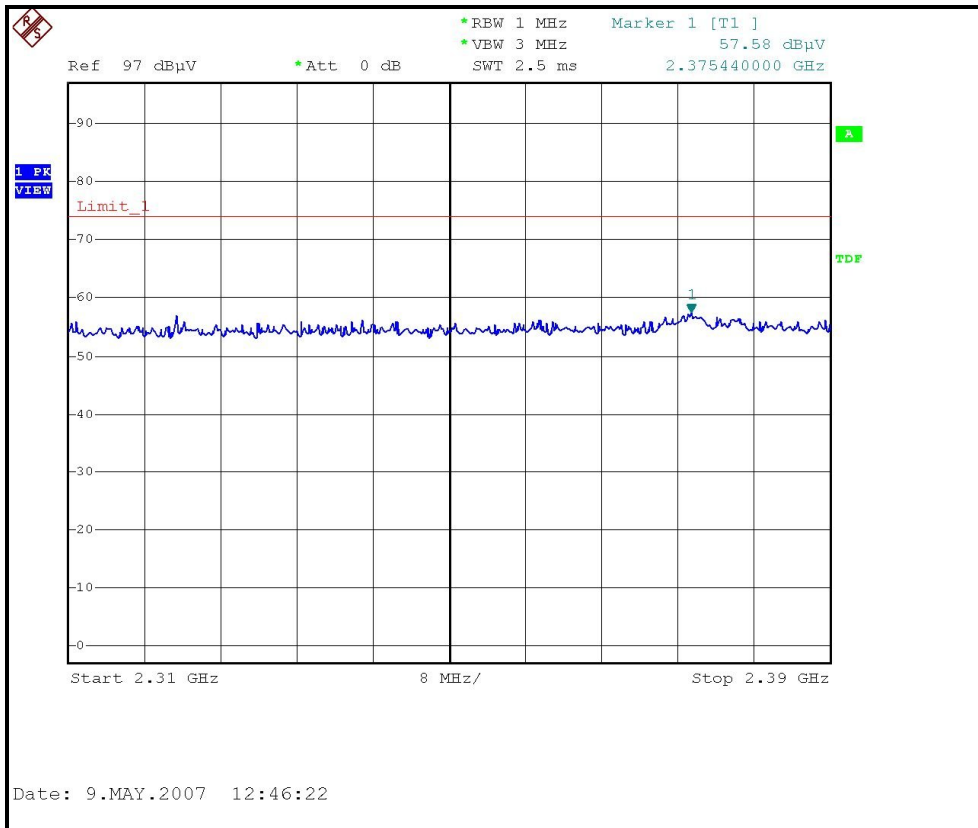
| No. | Freq. (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *2462.00 | 105.10 PK | | | 1.92 H | 69 | 74.38 | 30.72 |
| 2 | *2462.00 | 99.70 AV | | | 1.92 H | 69 | 68.98 | 30.72 |
| 3 | 2498.60 | 60.80 PK | 74.00 | -13.20 | 1.95 H | 69 | 29.92 | 30.88 |
| 4 | 2498.60 | 50.80 AV | 54.00 | -3.20 | 1.95 H | 69 | 19.92 | 30.88 |
| 5 | 4924.00 | 51.30 PK | 74.00 | -22.70 | 1.31 H | 68 | 15.40 | 35.90 |
| 6 | 4924.00 | 46.80 AV | 54.00 | -7.20 | 1.31 H | 68 | 10.90 | 35.90 |
| 7 | 7386.00 | 52.50 PK | 74.00 | -21.50 | 1.15 H | 286 | 9.70 | 42.80 |
| 8 | 7386.00 | 39.10 AV | 54.00 | -14.90 | 1.15 H | 286 | -3.70 | 42.80 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

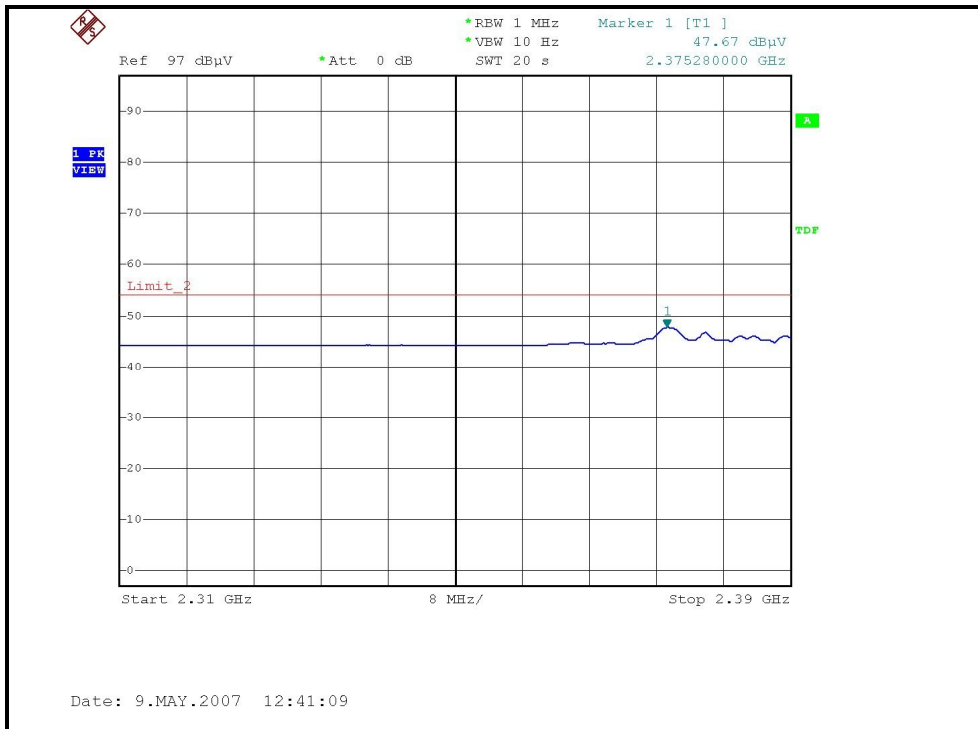
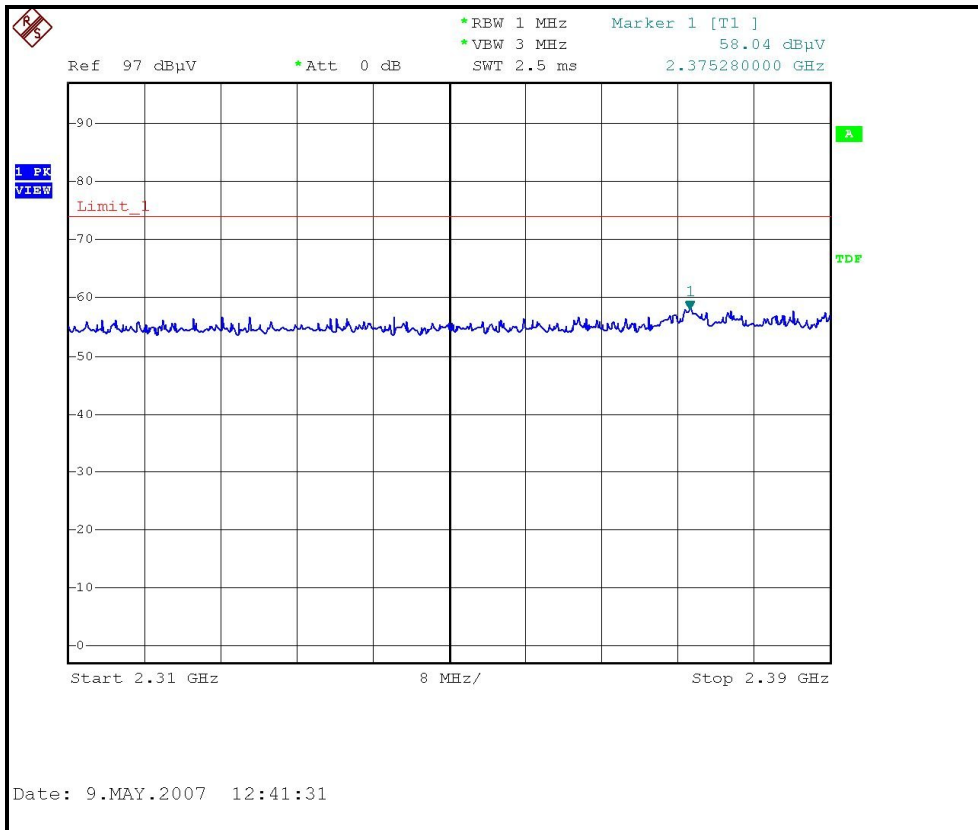
| No. | Freq. (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *2462.00 | 103.80 PK | | | 1.43 V | 337 | 73.08 | 30.72 |
| 2 | *2462.00 | 98.20 AV | | | 1.43 V | 337 | 67.48 | 30.72 |
| 3 | 2498.60 | 59.50 PK | 74.00 | -14.50 | 1.12 V | 339 | 28.62 | 30.88 |
| 4 | 2498.60 | 49.40 AV | 54.00 | -4.60 | 1.12 V | 339 | 18.52 | 30.88 |
| 5 | 4924.00 | 55.20 PK | 74.00 | -18.80 | 1.09 V | 105 | 19.30 | 35.90 |
| 6 | 4924.00 | 52.80 AV | 54.00 | -1.20 | 1.09 V | 105 | 16.90 | 35.90 |
| 7 | 7386.00 | 52.70 PK | 74.00 | -21.30 | 1.46 V | 96 | 9.90 | 42.80 |
| 8 | 7386.00 | 40.20 AV | 54.00 | -13.80 | 1.46 V | 96 | -2.60 | 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

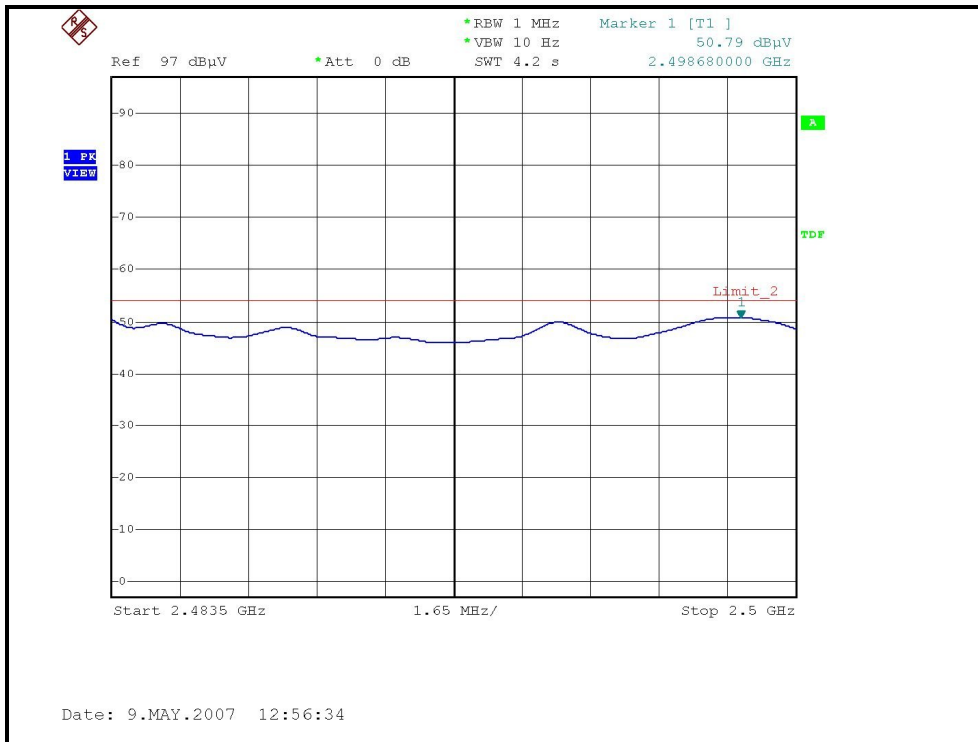
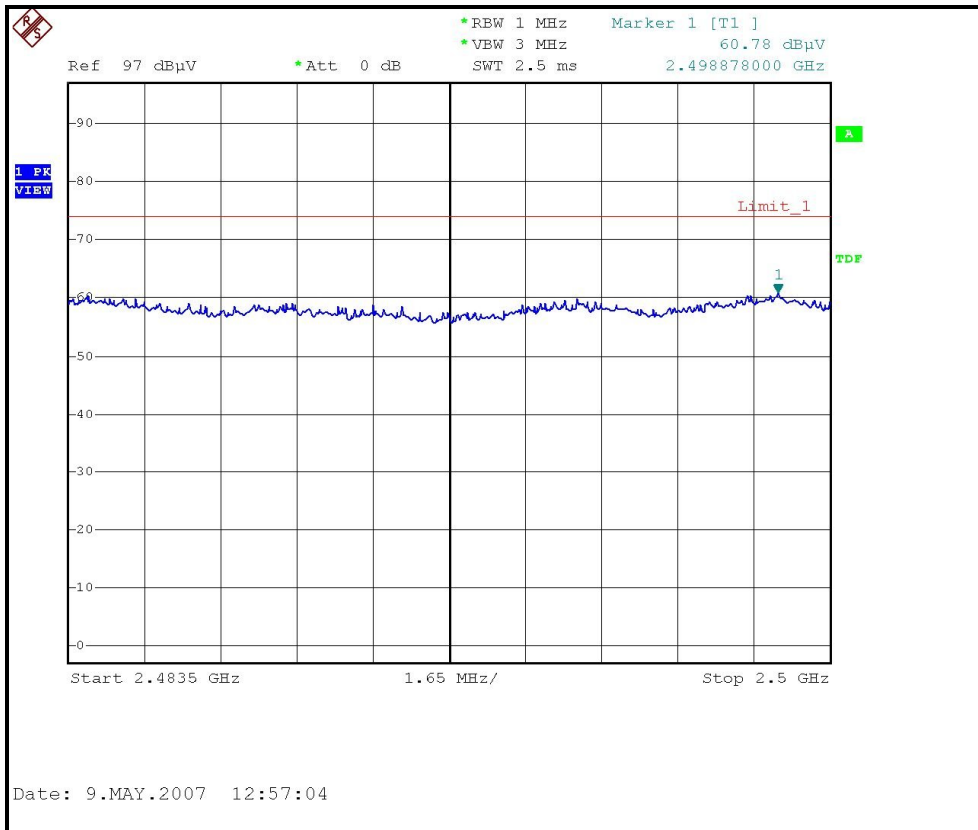
RESTRICTED BANDEDGE (802.11b MODE, CH1, HORIZONTAL)



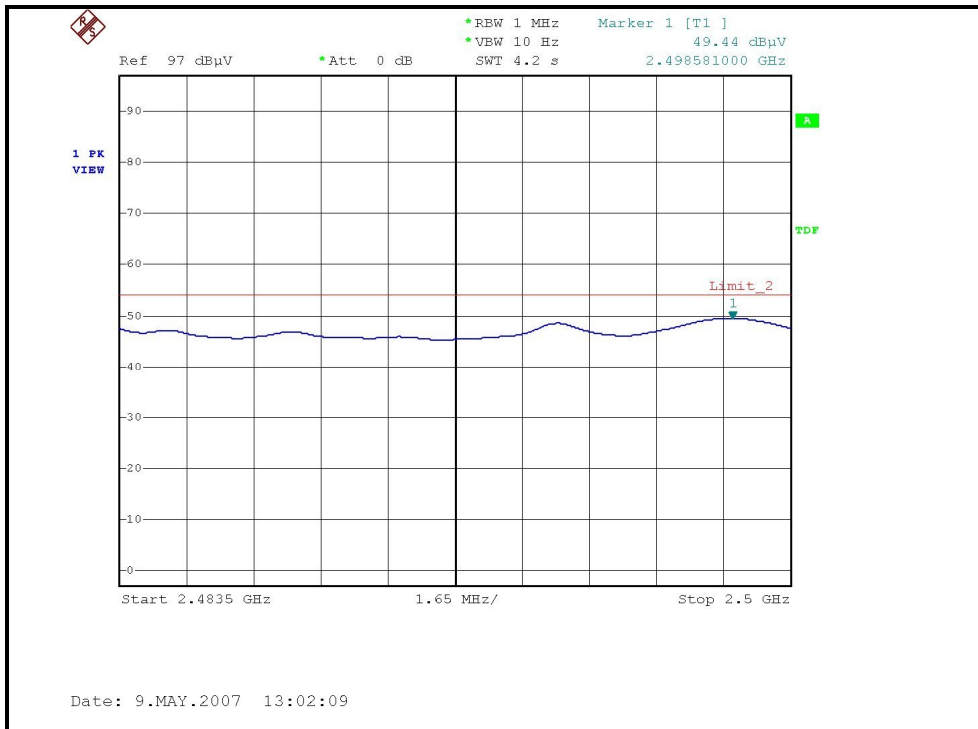
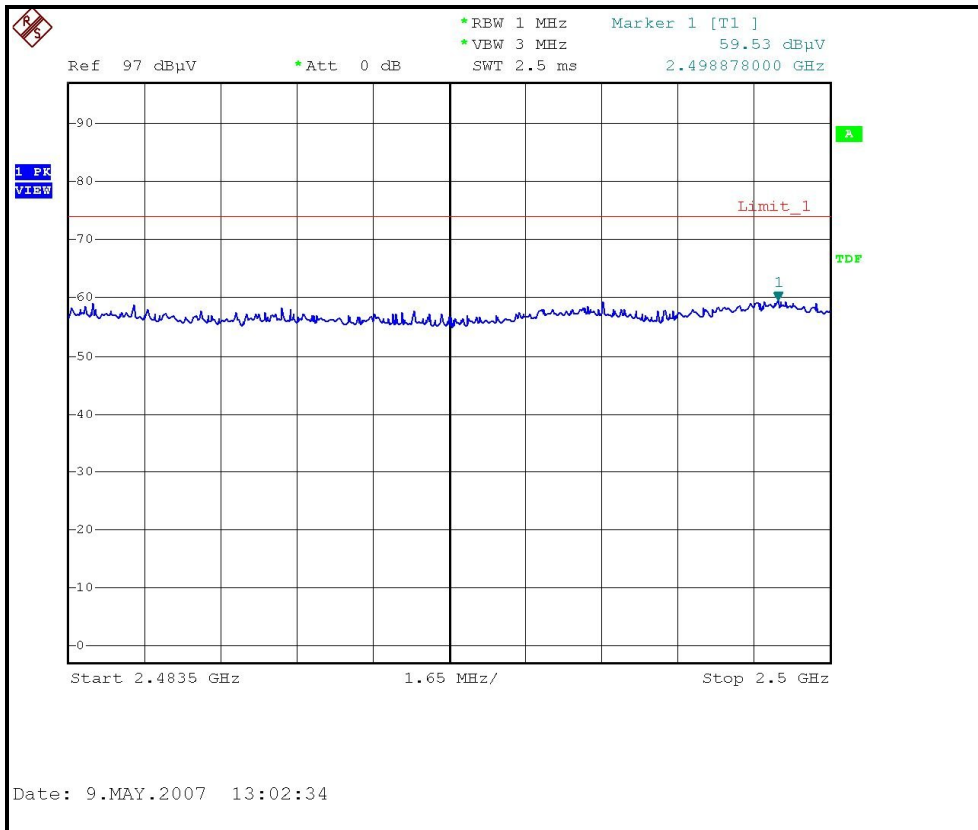
RESTRICTED BANDEDGE (802.11b MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11b MODE,CH11, VERTICAL)



4.2.8 TEST RESULTS –OFDM 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) 1 MHz |
| ENVIRONMENTAL CONDITIONS | 20 deg. C, 65%RH, 961hPa | TESTED BY | Phoenix 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 | 2390.00 | 69.03 PK | 74.00 | -4.97 | 1.39 H | 4 | 38.63 | 30.40 |
| 2 | 2390.00 | 51.80 AV | 54.00 | -2.20 | 1.39 H | 4 | 21.40 | 30.40 |
| 3 | *2412.00 | 104.90 PK | | | 1.40 H | 345 | 74.41 | 30.49 |
| 4 | *2412.00 | 94.70 AV | | | 1.40 H | 345 | 64.21 | 30.49 |
| 5 | 4824.00 | 49.50 PK | 74.00 | -24.50 | 1.50 H | 2 | 13.81 | 35.69 |
| 6 | 4824.00 | 36.30 AV | 54.00 | -17.70 | 1.50 H | 2 | 0.61 | 35.69 |
| 7 | 7236.00 | 54.20 PK | 74.00 | -19.80 | 1.15 H | 30 | 11.96 | 42.24 |
| 8 | 7236.00 | 40.90 AV | 54.00 | -13.10 | 1.15 H | 30 | -1.34 | 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 | 2390.00 | 67.00 PK | 74.00 | -7.00 | 1.50 V | 186 | 36.60 | 30.40 |
| 2 | 2390.00 | 49.60 AV | 54.00 | -4.40 | 1.50 V | 186 | 19.20 | 30.40 |
| 3 | *2412.00 | 100.70 PK | | | 1.48 V | 187 | 70.21 | 30.49 |
| 4 | *2412.00 | 91.00 AV | | | 1.48 V | 187 | 60.51 | 30.49 |
| 5 | 4824.00 | 49.90 PK | 74.00 | -24.10 | 1.47 V | 10 | 14.21 | 35.69 |
| 6 | 4824.00 | 36.80 AV | 54.00 | -17.20 | 1.47 V | 10 | 1.11 | 35.69 |
| 7 | 7236.00 | 55.20 PK | 74.00 | -18.80 | 1.31 V | 27 | 12.96 | 42.24 |
| 8 | 7236.00 | 41.90 AV | 54.00 | -12.10 | 1.31 V | 27 | -0.34 | 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, 65%RH, 961hPa | TESTED BY | Phoenix 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 | *2437.00 | 105.70 PK | | | 1.40 H | 346 | 75.09 | 30.61 |
| 2 | *2437.00 | 95.60 AV | | | 1.40 H | 346 | 64.99 | 30.61 |
| 3 | 4874.00 | 47.80 PK | 74.00 | -26.20 | 1.51 H | 16 | 12.00 | 35.80 |
| 4 | 4874.00 | 40.30 AV | 54.00 | -13.70 | 1.51 H | 16 | 4.50 | 35.80 |
| 5 | 7311.00 | 53.30 PK | 74.00 | -20.70 | 1.35 H | 127 | 10.78 | 42.52 |
| 6 | 7311.00 | 40.30 AV | 54.00 | -13.70 | 1.35 H | 127 | -2.22 | 42.52 |

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 | *2437.00 | 103.90 PK | | | 1.45 V | 187 | 73.29 | 30.61 |
| 2 | *2437.00 | 93.90 AV | | | 1.45 V | 187 | 63.29 | 30.61 |
| 3 | 4874.00 | 48.90 PK | 74.00 | -25.10 | 1.30 V | 20 | 13.10 | 35.80 |
| 4 | 4874.00 | 35.90 AV | 54.00 | -18.10 | 1.30 V | 20 | 0.10 | 35.80 |
| 5 | 7311.00 | 53.20 PK | 74.00 | -20.80 | 1.36 V | 145 | 10.68 | 42.52 |
| 6 | 7311.00 | 40.60 AV | 54.00 | -13.40 | 1.36 V | 145 | -1.92 | 42.52 |

- 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, 65%RH, 961hPa | TESTED BY | Phoenix Huang |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

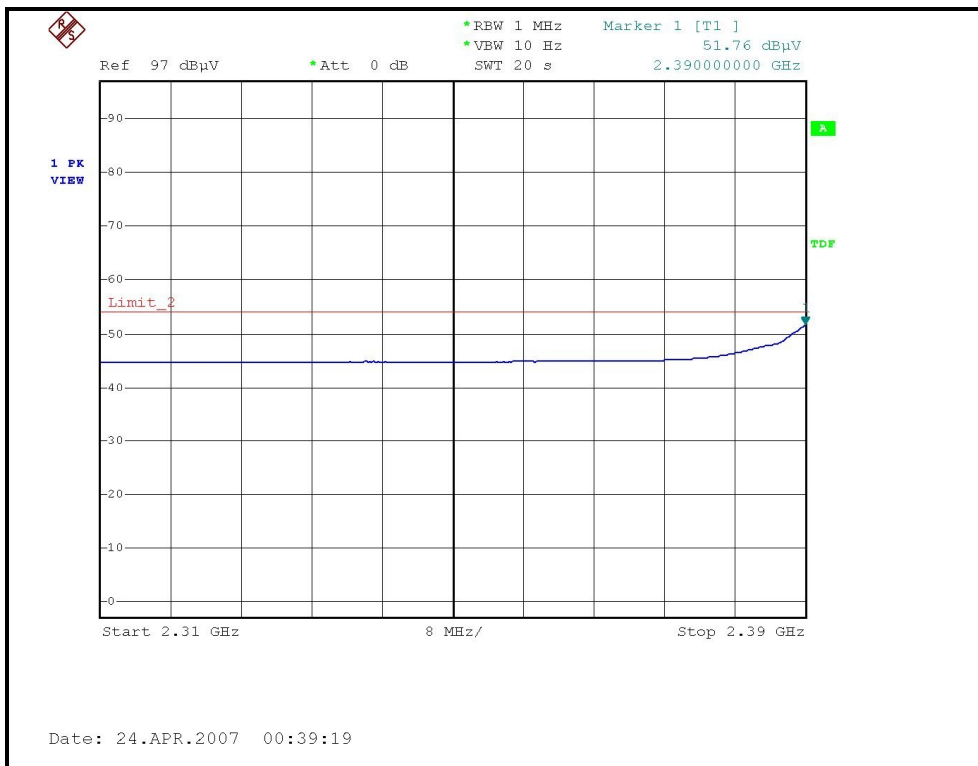
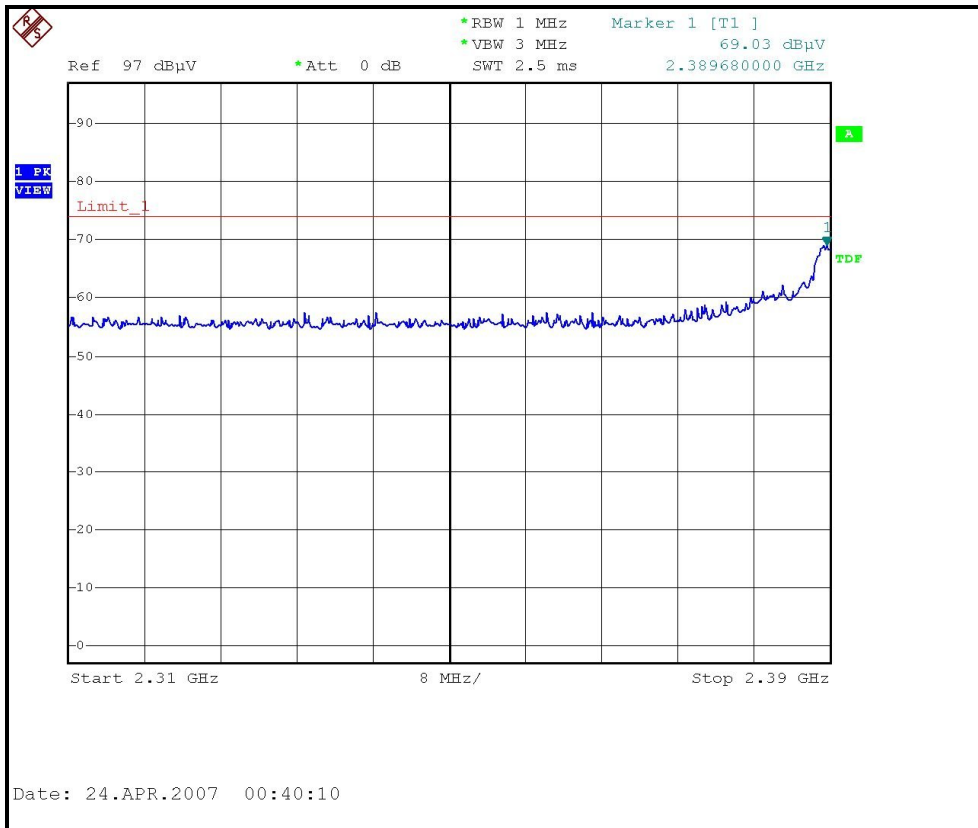
| No. | Freq. (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *2462.00 | 98.90 PK | | | 1.00 H | 254 | 68.18 | 30.72 |
| 2 | *2462.00 | 89.00 AV | | | 1.00 H | 254 | 58.28 | 30.72 |
| 3 | 2483.50 | 66.94 PK | 74.00 | -7.06 | 1.00 H | 68 | 36.12 | 30.82 |
| 4 | 2483.50 | 48.32 AV | 54.00 | -5.68 | 1.00 H | 68 | 17.50 | 30.82 |
| 5 | 4924.00 | 48.00 PK | 74.00 | -26.00 | 1.64 H | 15 | 12.10 | 35.90 |
| 6 | 4924.00 | 35.60 AV | 54.00 | -18.40 | 1.64 H | 15 | -0.30 | 35.90 |
| 7 | 7386.00 | 54.70 PK | 74.00 | -19.30 | 1.25 H | 69 | 11.90 | 42.80 |
| 8 | 7386.00 | 41.50 AV | 54.00 | -12.50 | 1.25 H | 69 | -1.30 | 42.80 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

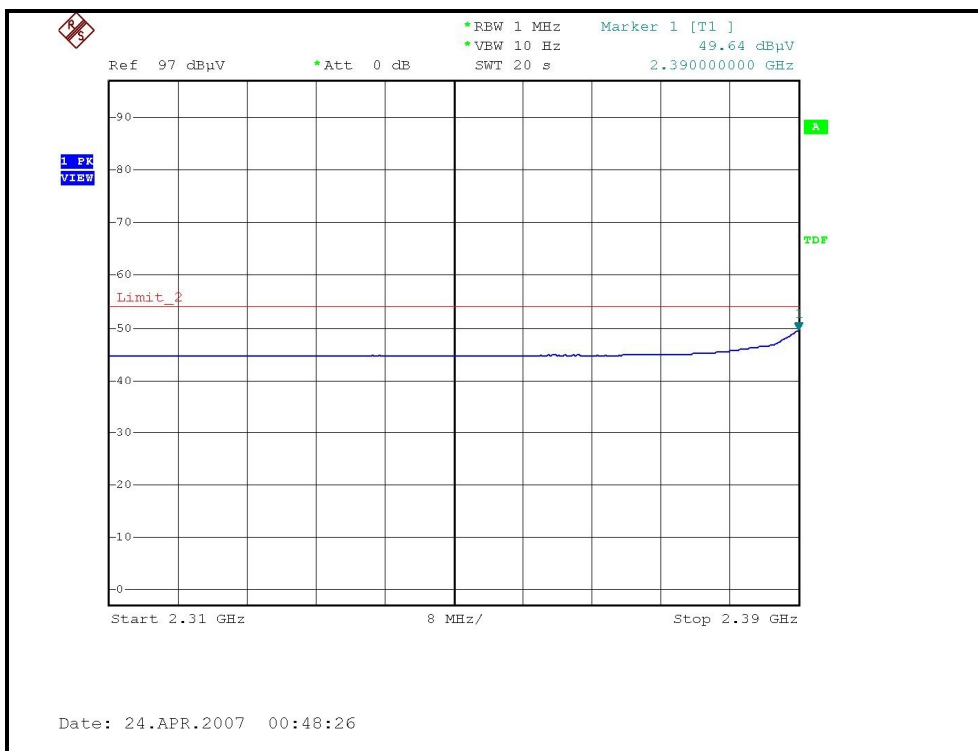
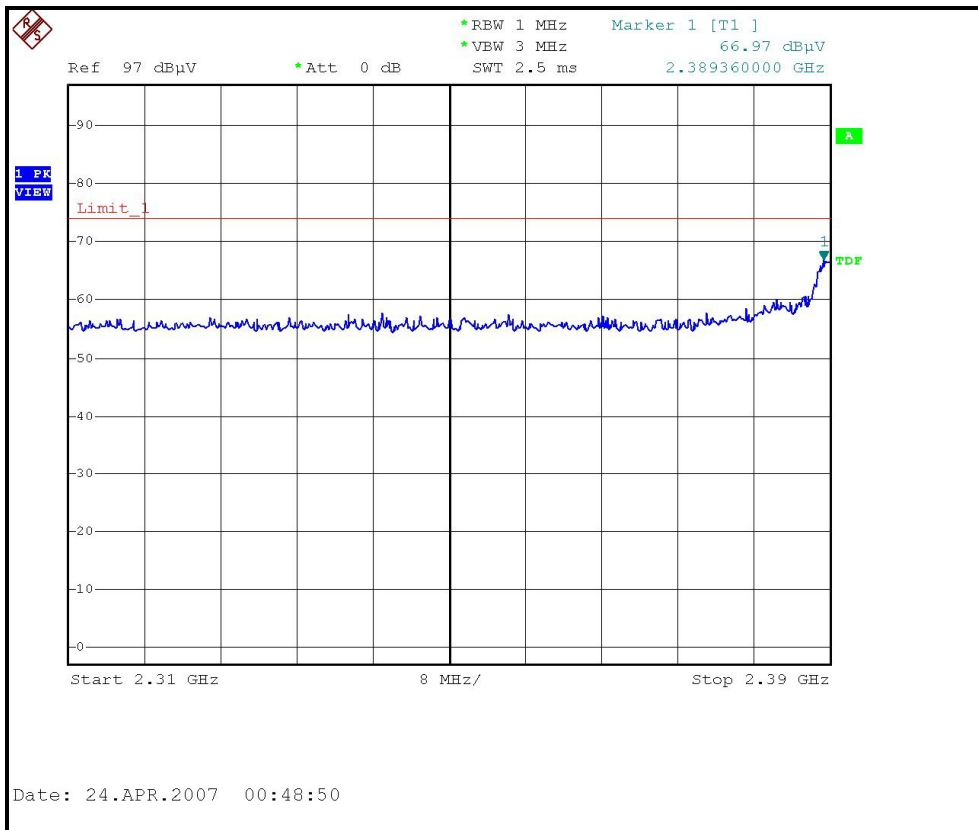
| No. | Freq. (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *2462.00 | 100.00 PK | | | 1.05 V | 206 | 69.28 | 30.72 |
| 2 | *2462.00 | 89.00 AV | | | 1.05 V | 206 | 58.28 | 30.72 |
| 3 | 2483.50 | 72.02 PK | 74.00 | -1.98 | 1.06 V | 207 | 41.20 | 30.82 |
| 4 | 2483.50 | 52.02 AV | 54.00 | -1.98 | 1.06 V | 207 | 21.20 | 30.82 |
| 5 | 4924.00 | 49.40 PK | 74.00 | -24.60 | 1.40 V | 5 | 13.50 | 35.90 |
| 6 | 4924.00 | 35.90 AV | 54.00 | -18.10 | 1.40 V | 5 | 0.00 | 35.90 |
| 7 | 7386.00 | 54.50 PK | 74.00 | -19.50 | 1.34 V | 289 | 11.70 | 42.80 |
| 8 | 7386.00 | 41.30 AV | 54.00 | -12.70 | 1.34 V | 289 | -1.50 | 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

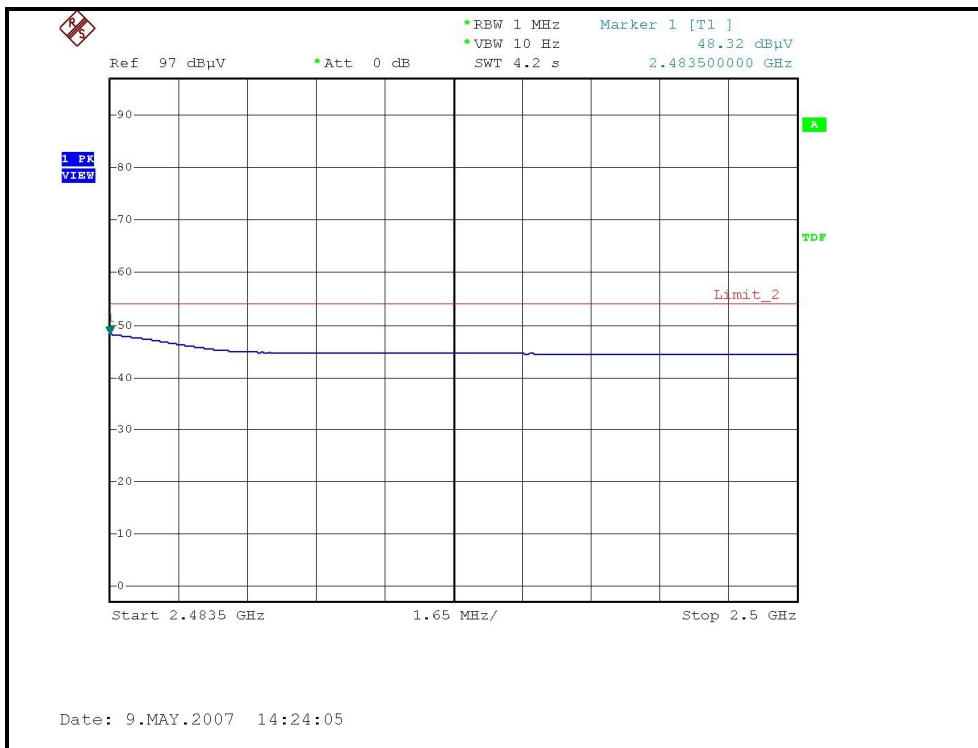
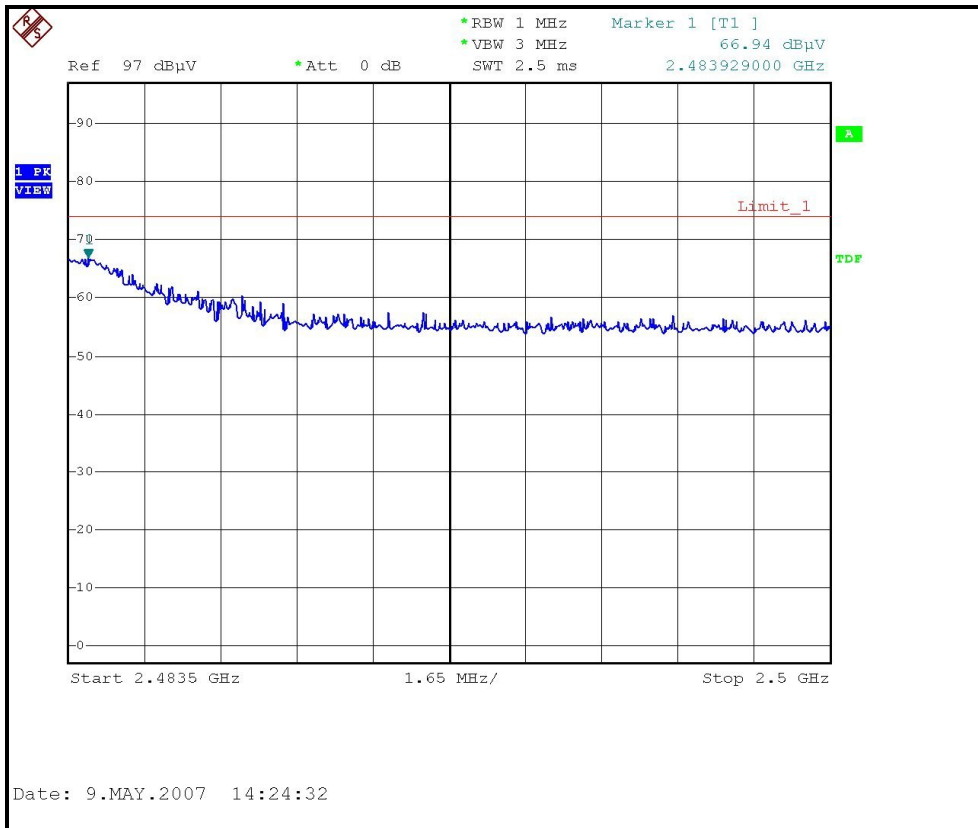
RESTRICTED BANDEDGE (802.11g MODE,CH1, HORIZONTAL)



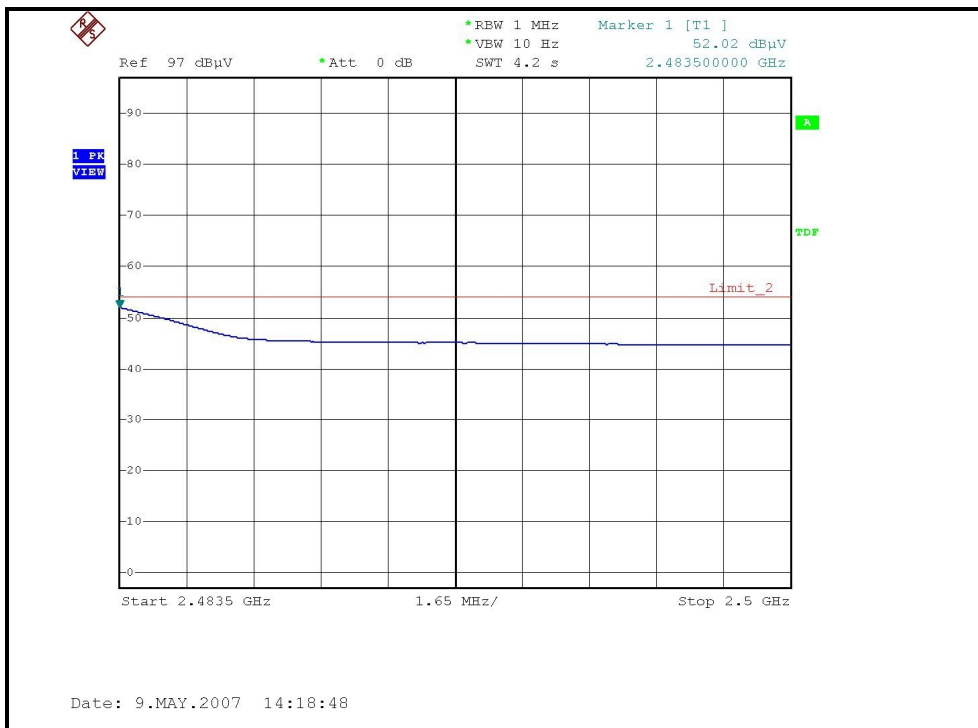
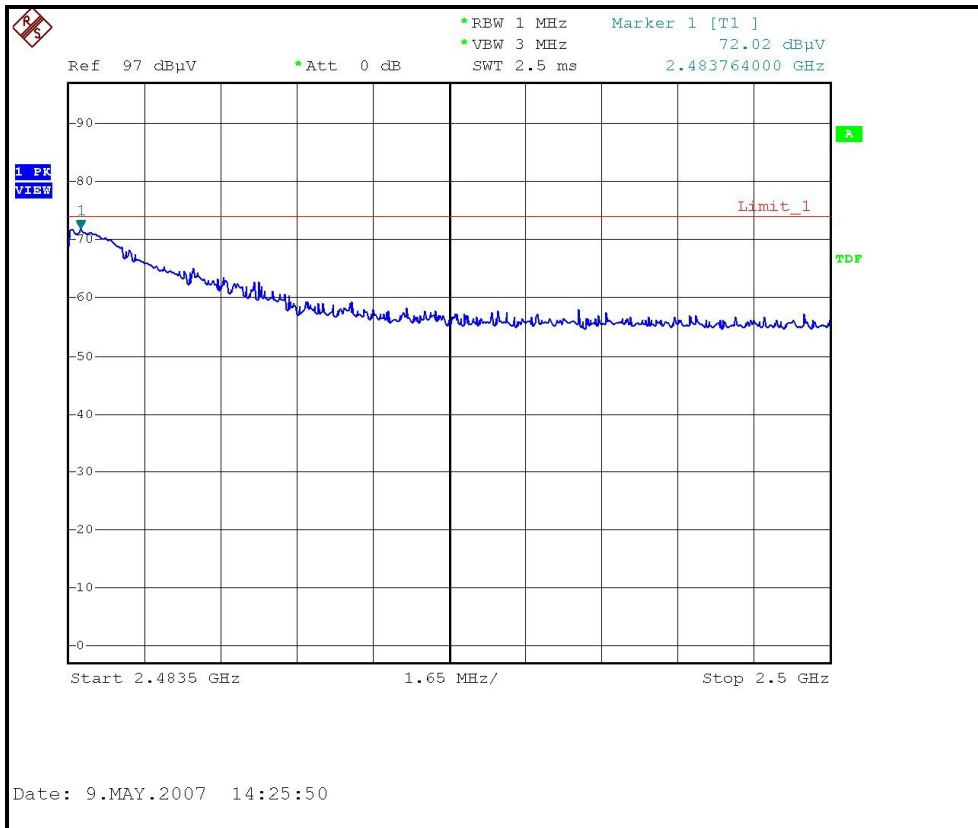
RESTRICTED BANDEDGE (802.11g MODE, CH1, VERTICAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, HORIZONTAL)



RESTRICTED BANDEDGE (802.11g MODE,CH11, VERTICAL)





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 | 100036 | Nov. 23, 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.



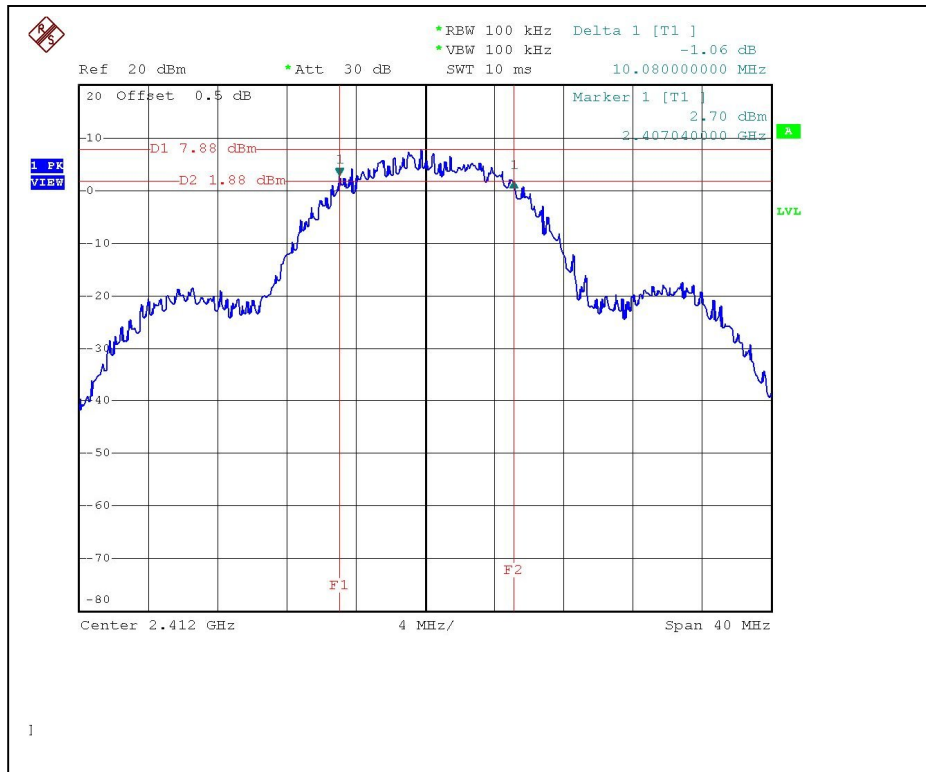
4.3.6 TEST RESULTS –DSSS

802.11b DSSS modulation

| | | | |
|-----------------------------|---------------|---------------------------------|-------------------------|
| MODULATION TYPE | CCK | TRANSFER RATE | 1Mbps |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | ENVIRONMENTAL CONDITIONS | 22deg. C, 64%RH, 961hPa |
| TESTED BY | Sky Liao | | |

| CHANNEL | CHANNEL FREQUENCY (MHz) | 6 dB BANDWIDTH (MHz) | MINIMUM LIMIT (MHz) | PASS/FAIL |
|----------------|--------------------------------|-----------------------------|----------------------------|------------------|
| 1 | 2412 | 10.08 | 0.5 | PASS |
| 6 | 2437 | 9.6 | 0.5 | PASS |
| 11 | 2462 | 9.6 | 0.5 | PASS |

CH1



CH6

