



CO-TRANSMISSION SUPPLEMENTARY TEST REPORT

REPORT NO.: RF991130E02-2
MODEL NO.: PHS2000W
FCC ID: UXX-PHS2000W
RECEIVED: Nov. 30, 2010
TESTED: Dec. 15 to 26, 2010
ISSUED: Jan. 26, 2011

APPLICANT: Cradlepoint, Inc.

ADDRESS: 805 W. Franklin Street, Boise, ID 83702

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

LAB LOCATION: No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen,
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Table of Contents

| | | |
|-------|--|----|
| 1 | CERTIFICATION | 3 |
| 2 | SUMMARY OF TEST RESULTS..... | 4 |
| 2.1 | MEASUREMENT UNCERTAINTY | 4 |
| 3 | GENERAL INFORMATION | 5 |
| 3.1 | GENERAL DESCRIPTION OF EUT | 5 |
| 3.2 | DESCRIPTION OF TEST MODES | 9 |
| 3.3 | TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL: | 10 |
| 3.4 | GENERAL DESCRIPTION OF APPLIED STANDARDS | 12 |
| 3.5 | DESCRIPTION OF SUPPORT UNITS..... | 13 |
| 3.6 | CONFIGURATION OF SYSTEM UNDER TEST | 14 |
| 4 | TEST TYPES AND RESULTS..... | 16 |
| 4.1 | CONDUCTED EMISSION MEASUREMENT | 16 |
| 4.1.1 | LIMITS OF CONDUCTED EMISSION MEASUREMENT | 16 |
| 4.1.2 | TEST INSTRUMENTS..... | 16 |
| 4.1.3 | TEST PROCEDURES | 17 |
| 4.1.4 | DEVIATION FROM TEST STANDARD | 17 |
| 4.1.5 | TEST SETUP | 17 |
| 4.1.6 | EUT OPERATING CONDITIONS..... | 18 |
| 4.1.7 | TEST RESULTS(MODE 1) | 19 |
| 4.1.8 | TEST RESULTS(MODE 2) | 21 |
| 4.2 | RADIATED EMISSION MEASUREMENT | 23 |
| 4.2.1 | LIMITS OF RADIATED EMISSION MEASUREMENT | 23 |
| 4.2.2 | TEST INSTRUMENTS..... | 24 |
| 4.2.3 | TEST PROCEDURES | 25 |
| 4.2.4 | TEST SETUP | 26 |
| 4.2.5 | EUT OPERATING CONDITIONS..... | 26 |
| 4.2.6 | TEST RESULTS | 27 |
| 5 | INFORMATION ON THE TESTING LABORATORIES | 31 |
| 6 | APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB | 32 |



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1 CERTIFICATION

PRODUCT : TableRock
BRAND NAME : Cradlepoint
MODEL NO. : PHS2000W
TESTED : Dec. 15 to 26, 2010
APPLICANT : Cradlepoint, Inc.
TEST SAMPLE : ENGINEERING SAMPLE
STANDARDS : 47 CFR Part 15, Subpart C (Section 15.247)
ANSI C63.4-2003
ANSI C63.10-2009

The above equipment (Model: PHS2000W) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : , **DATE:** Jan. 26, 2011
(Claire Kuan, Specialist)

APPROVED BY : , **DATE:** Jan. 26, 2011
(May Chen, Deputy Manager)



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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 -0.90 dB at 0.330MHz |
| 15.247(d) | Transmitter Radiated Emissions Limit: Table 15.209 | PASS | Meet the requirement of limit Minimum passing margin is -8.5 dB at 44.6 MHz |

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

| Measurement | Value |
|-----------------------------------|---------|
| Conducted emissions | 2.45 dB |
| Radiated emissions (30MHz-1GHz) | 3.94 dB |
| Radiated emissions (1GHz -18GHz) | 2.49 dB |
| Radiated emissions (18GHz -40GHz) | 2.70 dB |



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3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

| | |
|-------------------------------|---|
| PRODUCT | TableRock |
| MODEL NO. | PHS2000W |
| FCC ID | UXX-PHS2000W |
| POWER SUPPLY | DC 5V from adapter or DC 5V from dock or DC 3.7V from battery |
| ANTENNA TYPE | Please see note 1 |
| DATA CABLE | Micro USB cable (Shielded, 1.0m) |
| I/O PORTS | USB port x 1 Micro USB port x 1 10 pin connector port x 1 Antenna port x 2 |
| ASSOCIATED DEVICES | Adapter x 1 Battery x 1 Micro USB cable x 1 Dock x 1 |
| FOR WIMAX INFORMATION: | |
| MODULATION TECHNOLOGY | OFDMA |
| MODULATION TYPE | Up-Link: QPSK-1/2, -3/4, 16QAM-1/2, 3/4 |
| | Down-Link: QPSK-1/2, -3/4, 16QAM-1/2, 3/4, 64QAM-1/2, -2/3, -3/4, -5/6 |
| OPERATING FREQUENCY | 5MHz: 2498.5MHz ~ 2687.5MHz 10MHz: 2501MHz ~ 2685MHz |
| CHANNEL BANDWIDTH | 5MHz & 10MHz |
| MAX. EIRP POWER | 5MHz: 27.1dBm 10MHz: 26.8dBm |
| MAX. CONDUCTED POWER | 5MHz: 23.9dBm 10MHz: 23.5dBm |



| FOR WiFi INFORMATION: | |
|------------------------------|---|
| MODULATION TYPE | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM |
| MODULATION TECHNOLOGY | DSSS, OFDM |
| TRANSFER RATE | 802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps 802.11n (20MHz, 800ns GI):130 / 117 / 104 / 78 / 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps 802.11n (40MHz, 800ns GI): 270 / 243 / 216 / 162 / 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps |
| OPERATING FREQUENCY | 2412MHz ~ 2462MHz |
| NUMBER OF CHANNEL | 11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz) |
| MAXIMUM OUTPUT POWER | 802.11b: 26.3mW 802.11g: 46.8mW 802.11n (20MHz): 44.7mW 802.11n (40MHz): 39.8mW |

NOTE:

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

| Set 1 for WiMAX antenna | | | | | | |
|-------------------------|--------------|-------------------|------------|------------------|-----------------------|--------------------|
| Antenna | Antenna Type | Antenna Connector | Gain (dBi) | Cable Length(mm) | Frequency range (MHz) | Diversity Function |
| 1 | PCB | I-PEX | 2 | 30 | 2500~2700 | YES |
| 2 | PCB | I-PEX | 2 | 45 | 2500~2700 | YES |
| Set 2 for WIFI antenna | | | | | | |
| Antenna | Antenna Type | Antenna Connector | Gain (dBi) | Cable Length(mm) | Frequency range (MHz) | Diversity Function |
| 1 | PIFA | NA | 1 | NA | 2412~2472 | YES |
| 2 | PIFA | NA | 1 | NA | 2412~2472 | YES |

2. There is one set of antenna provided to this dock, please refer to the following table:

| Antenna | Antenna Type | Antenna Connector | Gain (dBi) | Cable Length(mm) | Frequency range (MHz) | Diversity Function |
|---------|--------------|-------------------|------------|------------------|-----------------------|--------------------|
| 1 | PCB | TS-9 | 5 | 140 | 2500~2700 | YES |
| 2 | PCB | TS-9 | 5 | 140 | 2500~2700 | YES |



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3. The EUT could be supplied with 3.7V battery, dock or the following power adapter which will be sold together with the EUT:

| Item | Brand | Model No. | Spec. |
|---------|-------------|----------------------------------|--|
| Adapter | Tenpao | S012UM0500180 | AC I/P: 100-240V, 50/60Hz, 400mA DC O/P: 5V, 1800mA |
| Battery | ETI CA | 0340-1371080001 (BP08-000720) | DC 3.7V, 1900mAh |
| Dock | Cradlepoint | PHS2000WD | |

4. The EUT could be applied with one 3G card and following three different models could be chosen: <only for test, not for sale>

| No. | Brand | Model No. | FCC ID |
|-----|-----------------|--------------|-------------|
| 1 | SIERRA WIRELESS | AirCard 875U | N7N-MC8775U |
| 2 | HUAWEI | E169u | QISE169 |
| 3 | D-Link | DWM-156 | KA2WM156A2 |

The EUT was pre-tested in chamber with above 3G cards, the worst case was found in model no.: **AirCard 875U**. Therefore only the test data of the mode was recorded in this report.

5. The EUT was pre-tested under the following test modes for three different axes placements:

| Test Mode | Description |
|-----------|-------------|
| Mode A | X-Y plane |
| Mode B | Y-Z plane |
| Mode C | X-Z plane |

From the above modes, the radiated emissions Test (Below 1 GHz), worse case was found in **Mode B**. For radiated emissions Test (Above 1 GHz), worse case was found in **Mode A**. Therefore only the test data of the mode was recorded in this report.



For WiMAX:

1. For the EUT Modulation type and coding rate. After pre-testing items of output power and spurious emissions, QPSK-1/2 was found to be 5MHz worst case, and was selected for the final test configuration.

| Up Link | | Down Link | |
|------------|-------------|------------|-------------|
| Modulation | Coding rate | Modulation | Coding rate |
| QPSK | 1/2 | QPSK | 1/2 |
| | 3/4 | | 3/4 |
| 16QAM | 1/2 | 16QAM | 1/2 |
| | 3/4 | | 3/4 |
| | | 64QAM | 1/2 |
| | | | 2/3 |
| | | | 3/4 |
| | | | 5/6 |

2. The EUT is 1 * 2 spatial SIMO (1Tx & 2Rx) without beam forming function.
3. The EUT embedded a firmware for testing that needs to control from Notebook computer to let EUT with different DL/UL ration.
4. The device has different DL/UL ration in normal operation. It was tested with (DL:UL= 29:18) duty cycle mode for 5MHz and 10MHz, which is the worse mode, and controlled by software.
5. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

For WiFi:

1. The EUT incorporates a SIMO function with 802.11n.
2. The EUT is 1 * 2 spatial SIMO (1Tx & 2Rx) without beam forming function. The 11b/g legacy mode is limited to single transmitter only.
3. The EUT complies with 802.11n standards and backwards compatible with 802.11b, 802.11g products.
4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



3.2 DESCRIPTION OF TEST MODES

For WiMAX:

CHANNEL BANDWIDTH: 5MHz

Low channel (L): 2498.5MHz.

Middle channel (M): 2587MHz.

High channel (H): 2687.5MHz.

CHANNEL BANDWIDTH: 10MHz

Low channel (L): 2501MHz.

Middle channel (M): 2593MHz.

High channel (H): 2685MHz.

For WiFi:

Operated in 2400 ~ 2483.5MHz band:

Eleven channels are provided for 802.11b, 802.11g, 802.11n (20MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 1 | 2412MHz | 7 | 2442MHz |
| 2 | 2417MHz | 8 | 2447MHz |
| 3 | 2422MHz | 9 | 2452MHz |
| 4 | 2427MHz | 10 | 2457MHz |
| 5 | 2432MHz | 11 | 2462MHz |
| 6 | 2437MHz | | |

Seven channels are provided for 802.11n (40MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 1 | 2422MHz | 5 | 2442MHz |
| 2 | 2427MHz | 6 | 2447MHz |
| 3 | 2432MHz | 7 | 2452MHz |
| 4 | 2437MHz | | |



3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

| EUT CONFIGURE MODE | APPLICABLE TO | | | DESCRIPTION |
|--------------------|---------------|---------|---------|---|
| | PLC | RE < 1G | RE ≥ 1G | |
| MODE 1 | √ | √ | √ | Co-location mode: EUT + Battery + Dock + Adapter |
| MODE 2 | √ | √ | √ | Co-location mode: EUT + Battery + Adapter with 3G card |

Where **PLC**: Power Line Conducted Emission **RE < 1G**: Radiated Emission below 1GHz
RE ≥ 1G: Radiated Emission above 1GHz

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 | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE |
|--------|--------------------------------------|--------------------------------|-------------------------------|
| MODE 1 | WiMAX:5MHz M / Wi-Fi: 11g CH 6 | WiMAX: OFDMA / Wi-Fi: OFDM | WiMAX: QPSK-1/2 / Wi-Fi: BPSK |
| MODE 2 | 3G card: CH 810 / Wi-Fi: 11g CH 6 | 3G card: PCS1900 / Wi-Fi: OFDM | 3G card: GSM / Wi-Fi: BPSK |

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 | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE |
|--------|--------------------------------------|--------------------------------|-------------------------------|
| MODE 1 | WiMAX:5MHz M / Wi-Fi: 11g CH 6 | WiMAX: OFDMA / Wi-Fi: OFDM | WiMAX: QPSK-1/2 / Wi-Fi: BPSK |
| MODE 2 | 3G card: CH 810 / Wi-Fi: 11g CH 6 | 3G card: PCS1900 / Wi-Fi: OFDM | 3G card: GSM / Wi-Fi: BPSK |



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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 | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE |
|--------|--------------------------------------|--------------------------------|-------------------------------|
| MODE 1 | WiMAX:5MHz M / Wi-Fi: 11g CH 6 | WiMAX: OFDMA / Wi-Fi: OFDM | WiMAX: QPSK-1/2 / Wi-Fi: BPSK |
| MODE 2 | 3G card: CH 810 / Wi-Fi: 11g CH 6 | 3G card: PCS1900 / Wi-Fi: OFDM | 3G card: GSM / Wi-Fi: BPSK |

※ TEST CONDITION:

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | INPUT POWER (SYSTEM) | TESTED BY |
|--------------------|--|----------------------|--------------------|
| RE ³ 1G | 20deg. C, 72%RH, 1022 hPa | 120Vac, 60Hz | Wen Yu |
| RE<1G | 18deg. C, 63%RH, 1022 hPa / 20deg. C, 72%RH, 1022 hPa | 120Vac, 60Hz | Wen Yu / Frank Liu |
| PLC | 19deg. C, 47%RH, 1022 hPa | 120Vac, 60Hz | Moris Lin |



3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. 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

ANSI C63.10-2009

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

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



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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.

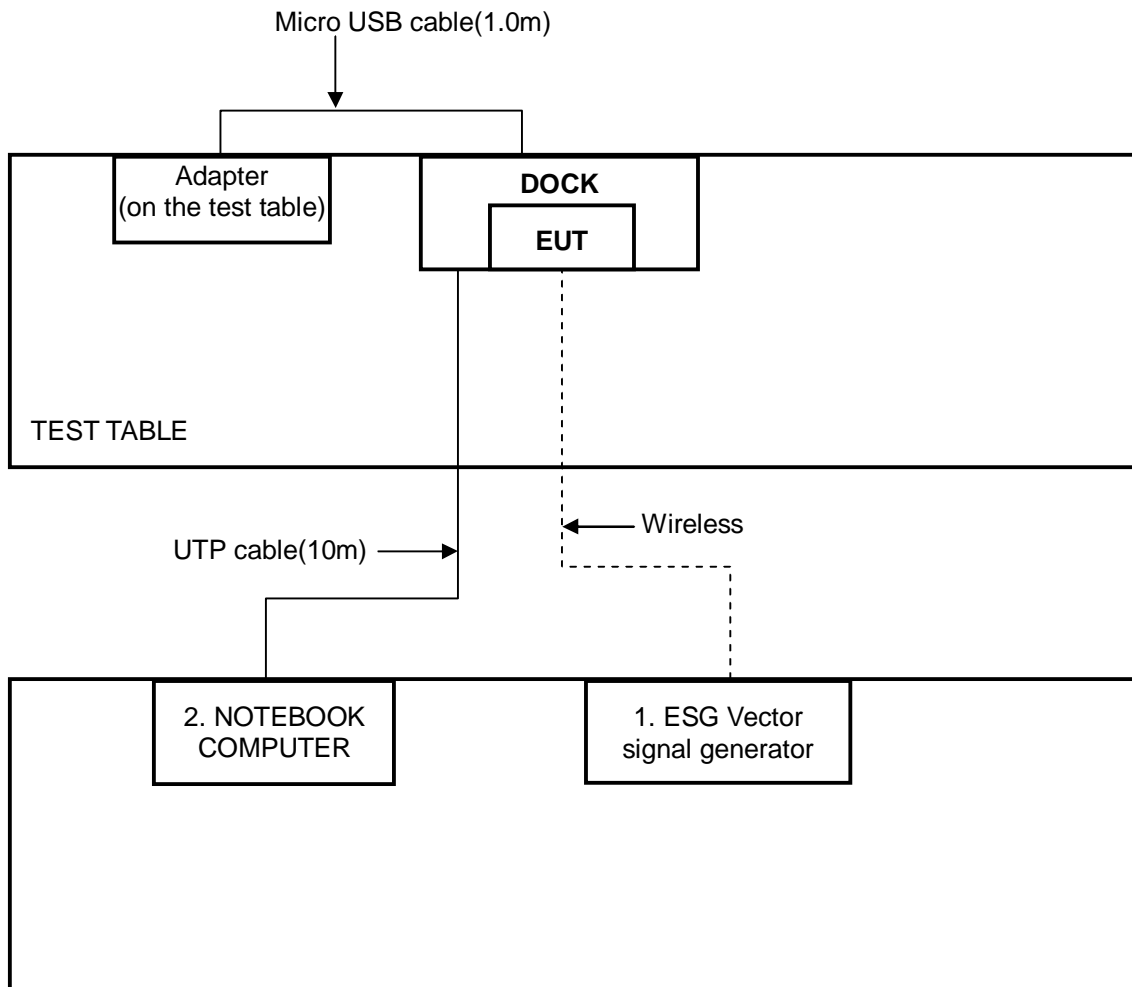
| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|-----------------------------|---------|-----------|-----------------------------------|------------------|
| 1 | ESG Vector signal generator | Agilent | E4438C | MY45094468/005 506 602 UK6 UNJ | NA |
| 2 | NOTEBOOK COMPUTER | DELL | D531 | CN-0XM006-48643 -86L-4472 | QDS-BRCM10 19 |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|---|
| 1 | NA |
| 2 | UTP cable(10m) |

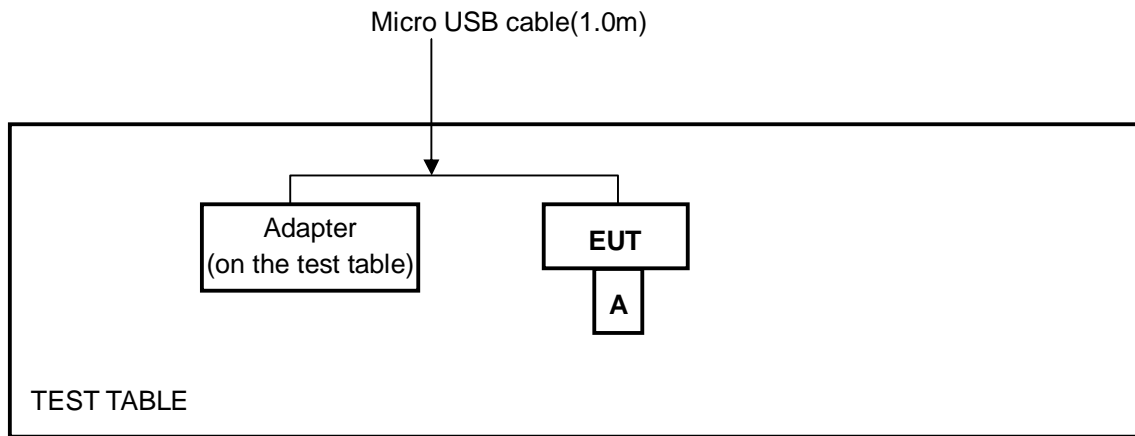
NOTE: All power cords of the above support units are non shielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST

For WiMAX+WiFi



For WiFi+3G card



NOTE: 1. Item A is the 3G card.



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

4.1.2 TEST INSTRUMENTS

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|---|-----------------------|------------|------------------|------------------|
| ROHDE & SCHWARZ Test Receiver | ESCS 30 | 100287 | Mar. 01, 2010 | Feb. 28, 2011 |
| Line-Impedance Stabilization Network (for EUT) | NSLK 8127 | 8127-523 | Sep. 17, 2010 | Sep. 16, 2011 |
| Line-Impedance Stabilization Network (for Peripheral) | ENV-216 | 100072 | June 11, 2010 | June 10, 2011 |
| RF Cable (JYEBAO) | 5DFB | CONCAB-003 | Aug. 06, 2010 | Aug. 05, 2011 |
| 50 ohms Terminator | 50 | 3 | Nov. 03, 2010 | Nov. 02, 2011 |
| Software | BV ADT_Cond_V7.3.7 | NA | 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 Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.

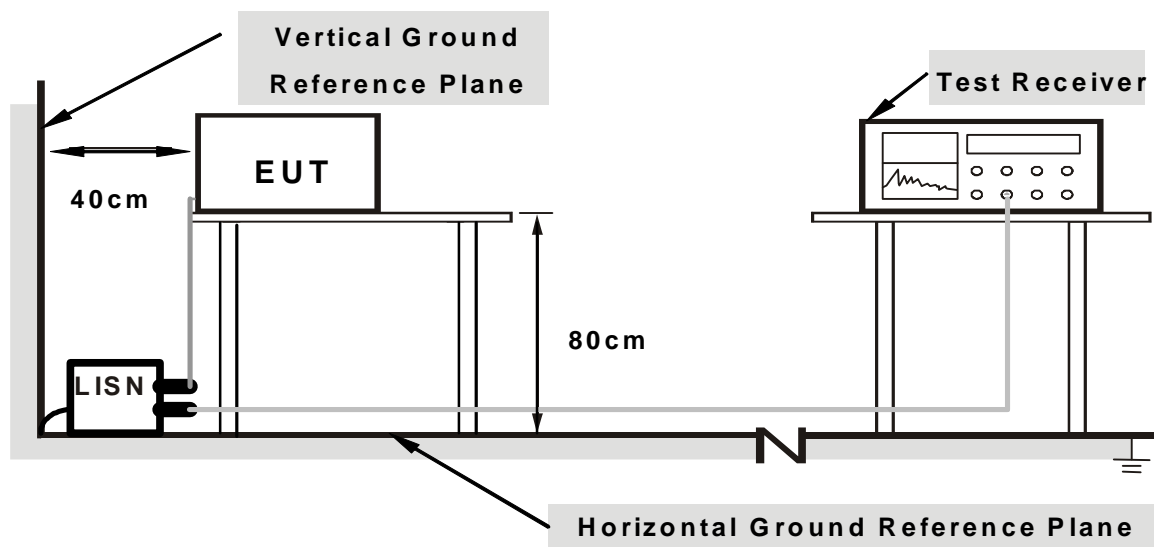
4.1.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

For WiMAX+WiFi

1. Prepared other computer system support unit 1 (Notebook Computer) to act as communication partners and placed them outside of testing area.
2. The communication partners ran test program “Ping.exe” to enable EUT under transmission/receiving condition continuously via one UTP cable.
3. Support unit 2 (ESG Vector signal generator) ran test program “Beceem Diagnostic Control Panel 3.4.0” to enable EUT under transmission/receiving condition continuously via wireless transmission.

For WiFi+3G card

1. Placed the EUT on testing table.
2. The notebook computer ran test program to enable EUT under transmission/receiving condition continuously at specific channel frequency via wireless.



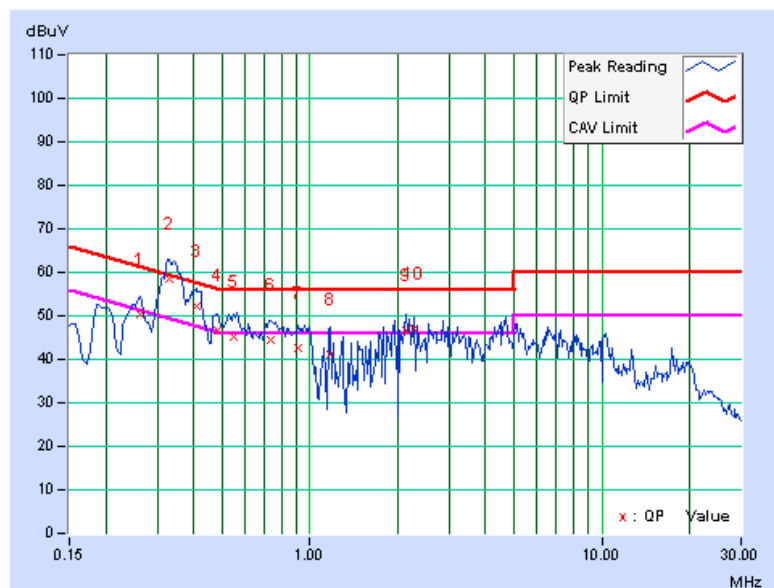
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4.1.7 TEST RESULTS(MODE 1)

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|----------------------------------|--------------------|-----------|
| CHANNEL | WiMAX: 5MHz M Wi-Fi: 11g CH 6 | PHASE | Line (L) |
| INPUT POWER | 120Vac, 60 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 19deg. C, 47%RH, 1022hPa | 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 | 0.263 | 0.36 | 50.16 | - | 50.52 | - | 61.33 | 51.33 | -10.81 | - |
| 2 | 0.330 | 0.36 | 58.20 | 46.29 | 58.56 | 46.65 | 59.46 | 49.46 | -0.90 | -2.81 |
| 3 | 0.408 | 0.36 | 51.70 | 37.57 | 52.06 | 37.93 | 57.69 | 47.69 | -5.63 | -9.76 |
| 4 | 0.482 | 0.37 | 46.16 | 30.35 | 46.53 | 30.72 | 56.30 | 46.30 | -9.78 | -15.59 |
| 5 | 0.548 | 0.37 | 44.98 | - | 45.35 | - | 56.00 | 46.00 | -10.65 | - |
| 6 | 0.732 | 0.39 | 44.02 | - | 44.41 | - | 56.00 | 46.00 | -11.59 | - |
| 7 | 0.912 | 0.40 | 42.12 | - | 42.52 | - | 56.00 | 46.00 | -13.48 | - |
| 8 | 1.176 | 0.42 | 40.73 | - | 41.15 | - | 56.00 | 46.00 | -14.85 | - |
| 9 | 2.137 | 0.46 | 46.22 | 31.95 | 46.68 | 32.41 | 56.00 | 46.00 | -9.32 | -13.59 |
| 10 | 2.262 | 0.47 | 46.63 | 32.40 | 47.10 | 32.87 | 56.00 | 46.00 | -8.90 | -13.13 |

- 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.



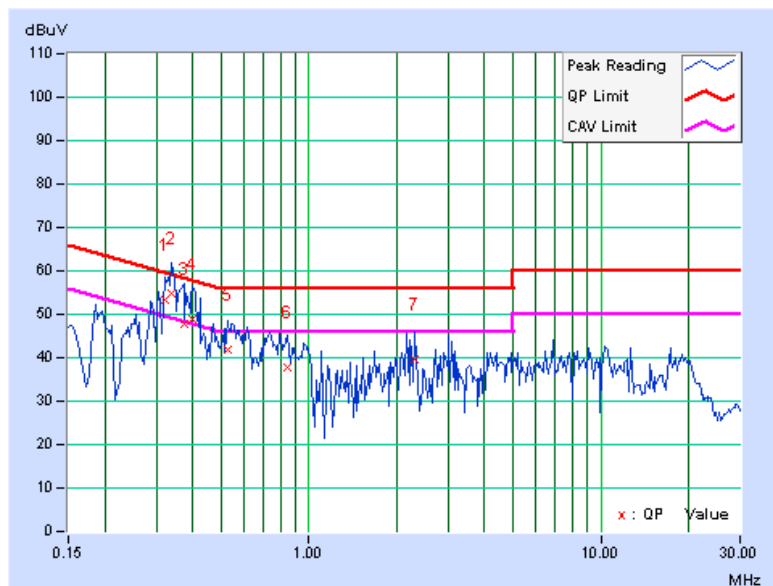


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| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|----------------------------------|--------------------|-------------|
| CHANNEL | WiMAX: 5MHz M Wi-Fi: 11g CH 6 | PHASE | Neutral (N) |
| INPUT POWER | 120Vac, 60 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 19deg. C, 47%RH, 1022hPa | 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 | 0.322 | 0.11 | 53.39 | 36.74 | 53.50 | 36.85 | 59.66 | 49.66 | -6.16 | -12.81 |
| 2 | 0.338 | 0.11 | 54.74 | 38.62 | 54.85 | 38.73 | 59.26 | 49.26 | -4.42 | -10.54 |
| 3 | 0.373 | 0.11 | 47.80 | - | 47.91 | - | 58.44 | 48.44 | -10.53 | - |
| 4 | 0.400 | 0.11 | 48.93 | 32.63 | 49.04 | 32.74 | 57.85 | 47.85 | -8.81 | -15.11 |
| 5 | 0.525 | 0.12 | 41.77 | - | 41.89 | - | 56.00 | 46.00 | -14.11 | - |
| 6 | 0.845 | 0.15 | 37.60 | - | 37.75 | - | 56.00 | 46.00 | -18.25 | - |
| 7 | 2.301 | 0.21 | 39.39 | - | 39.60 | - | 56.00 | 46.00 | -16.40 | - |

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





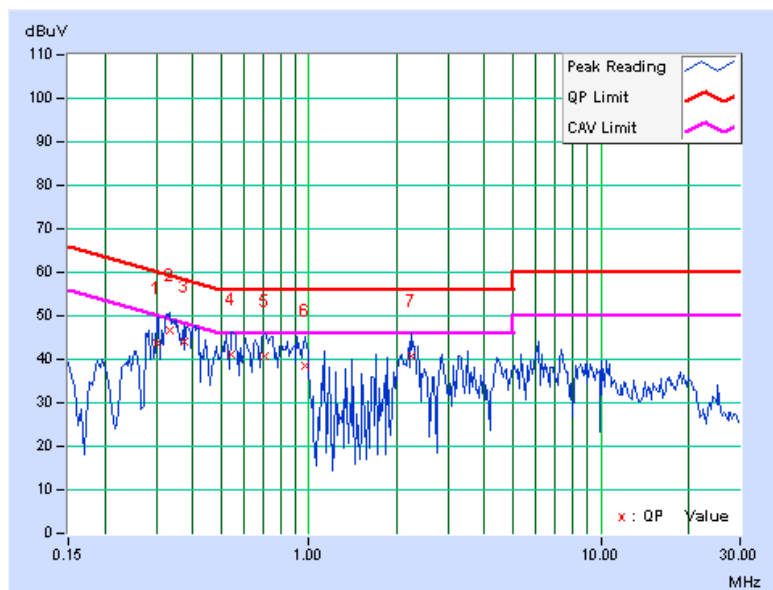
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4.1.8 TEST RESULTS(MODE 2)

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|------------------------------------|--------------------|-----------|
| CHANNEL | 3G card: CH 810 Wi-Fi: 11g CH 6 | PHASE | Line (L) |
| INPUT POWER | 120Vac, 60 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 19deg. C, 47%RH, 1022hPa | 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 | 0.302 | 0.36 | 43.38 | - | 43.74 | - | 60.18 | 50.18 | -16.44 | - |
| 2 | 0.334 | 0.36 | 46.35 | - | 46.71 | - | 59.36 | 49.36 | -12.65 | - |
| 3 | 0.373 | 0.36 | 43.78 | - | 44.14 | - | 58.44 | 48.44 | -14.30 | - |
| 4 | 0.545 | 0.37 | 40.79 | - | 41.16 | - | 56.00 | 46.00 | -14.84 | - |
| 5 | 0.709 | 0.39 | 40.44 | - | 40.83 | - | 56.00 | 46.00 | -15.17 | - |
| 6 | 0.966 | 0.41 | 38.13 | - | 38.54 | - | 56.00 | 46.00 | -17.46 | - |
| 7 | 2.242 | 0.47 | 40.41 | - | 40.88 | - | 56.00 | 46.00 | -15.12 | - |

- 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.



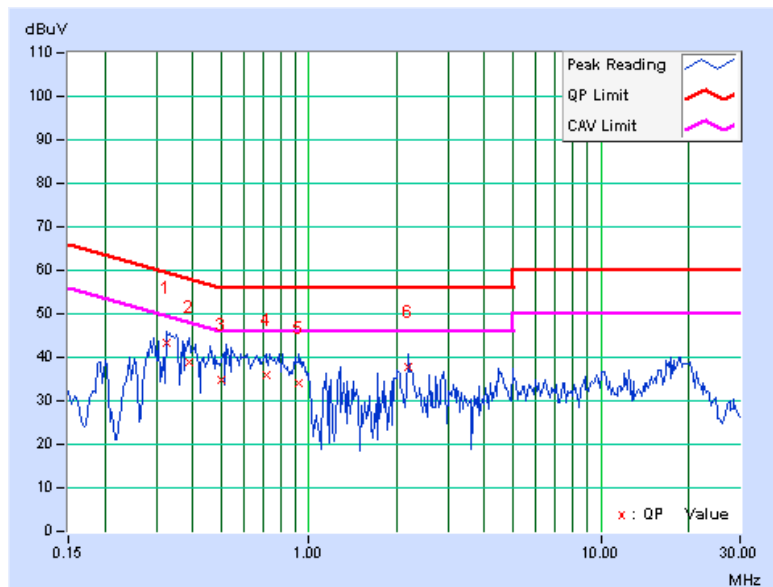


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| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|------------------------------------|--------------------|-------------|
| CHANNEL | 3G card: CH 810 Wi-Fi: 11g CH 6 | PHASE | Neutral (N) |
| INPUT POWER | 120Vac, 60 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 19deg. C, 47%RH, 1022hPa | 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 | 0.326 | 0.11 | 43.08 | - | 43.19 | - | 59.56 | 49.56 | -16.37 | - |
| 2 | 0.388 | 0.11 | 38.91 | - | 39.02 | - | 58.10 | 48.10 | -19.08 | - |
| 3 | 0.500 | 0.12 | 34.82 | - | 34.94 | - | 56.00 | 46.00 | -21.06 | - |
| 4 | 0.713 | 0.14 | 35.91 | - | 36.05 | - | 56.00 | 46.00 | -19.95 | - |
| 5 | 0.923 | 0.15 | 33.77 | - | 33.92 | - | 56.00 | 46.00 | -22.08 | - |
| 6 | 2.195 | 0.20 | 37.58 | - | 37.78 | - | 56.00 | 46.00 | -18.22 | - |

- 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. Section 15.205 restricted bands of operation shall compliance with the limits in Section 15.209.
5. For WiMAX device the out of band emission shall comply with the FCC 27.53(m). For mobile digital stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge and 55 + 10 log (P) dB at 5.5 MHz from the channel edges. The limit of emission equal to -13dBm (82.2dBuV/m at 3m) & -25dBm(70.2dBuV/m at 3m).
6. For 3G device the out of band emission shall comply with the FCC 22.917(a). The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The limit of emission equal to -13dBm (82.2dBuV/m at 3m).



4.2.2 TEST INSTRUMENTS

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|--------------------------------------|-------------------------------|-------------------------|-----------------|------------------|
| ROHDE & SCHWARZ Spectrum Analyzer | FSP40 | 100036 | Dec. 08, 2010 | Dec. 07, 2011 |
| Agilent PSA Spectrum Analyzer | E4446A | MY46180622 | May 12 , 2010 | May 11 , 2011 |
| HP Pre_Amplifier | 8449B | 300801923 | Nov. 01, 2010 | Oct. 31, 2011 |
| ROHDE & SCHWARZ Test Receiver | ESCS30 | 847124/029 | Sep. 03, 2010 | Sep. 02, 2011 |
| SCHWARZBECK TRILOG Broadband Antenna | VULB 9168 | 138 | Apr. 28, 2010 | Apr. 27, 2011 |
| Schwarzbeck Horn_Antenna | BBHA9120 | D124 | Dec. 17, 2010 | Dec. 16, 2011 |
| Schwarzbeck Horn_Antenna | BBHA 9170 | BBHA9170153 | Jan. 22, 2010 | Jan. 21, 2011 |
| RF Switches | EMH-011 | 1001 | NA | NA |
| RF CABLE (Chaintek) | Sucoflex 104+ Sucoflex 106 | RF104-101+R F106-101 | Aug. 24, 2010 | Aug. 23, 2011 |
| RF Cable | 8DFB | STCCAB-30M- 1GHz | NA | NA |
| Software | ADT_Radiated_ V7.6.15.9.2 | NA | NA | NA |
| CT Antenna Tower & Turn Table | NA | NA | 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 horn antenna, preamplifier (model: 8449B) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.

3. The test was performed in 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 7450G-3.



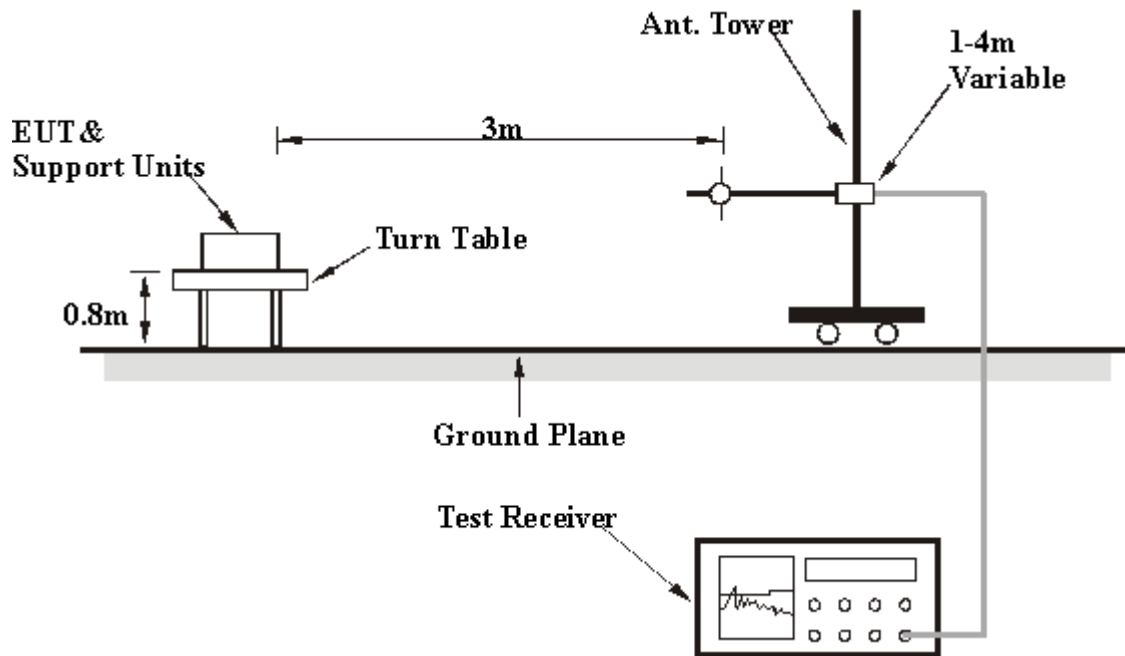
4.2.3 TEST PROCEDURES

- 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 height of antenna 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

Same as 4.1.6



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4.2.6 TEST RESULTS(BELOW 1GHz, MODE 1)

BELOW 1GHz WORST-CASE DATA :

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|----------------------------------|--------------------|---------------------------|
| CHANNEL | WiMAX: 5MHz M Wi-Fi: 11g CH 6 | FREQUENCY RANGE | 30-1000 MHz |
| INPUT POWER | 120Vac, 60 Hz | DETECTOR FUNCTION | Peak (PK) Average (AV) |
| ENVIRONMENTAL CONDITIONS | 18deg. C, 63%RH 1022hPa | TESTED BY | Wen Yu |

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 | 122.90 | 27.6 QP | 43.50 | -15.9 | 1.24 H | 125 | 15.02 | 12.58 |
| 2 | 150.80 | 31.6 QP | 43.50 | -11.9 | 1.55 H | 127 | 17.38 | 14.18 |
| 3 | 181.40 | 29.4 QP | 43.50 | -14.1 | 1.15 H | 142 | 17.73 | 11.69 |
| 4 | 267.20 | 30.3 QP | 46.00 | -15.8 | 1.26 H | 114 | 15.95 | 14.30 |
| 5 | 396.70 | 30.7 QP | 46.00 | -15.3 | 1.54 H | 221 | 12.64 | 18.10 |
| 6 | 855.60 | 31.7 QP | 46.00 | -14.3 | 1.21 H | 210 | 5.17 | 26.52 |

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 | 44.60 | 31.6 QP | 40.00 | -8.5 | 1.00 V | 214 | 17.86 | 13.69 |
| 2 | 120.00 | 30.3 QP | 43.50 | -13.2 | 1.00 V | 25 | 18.09 | 12.20 |
| 3 | 131.30 | 26.6 QP | 43.50 | -17.0 | 1.00 V | 54 | 12.85 | 13.70 |
| 4 | 160.00 | 27.7 QP | 43.50 | -15.8 | 1.00 V | 54 | 12.19 | 15.47 |
| 5 | 200.00 | 26.6 QP | 43.50 | -16.9 | 1.00 V | 154 | 15.63 | 10.95 |
| 6 | 250.00 | 27.9 QP | 46.00 | -18.1 | 1.00 V | 166 | 14.31 | 13.57 |
| 7 | 375.00 | 28.7 QP | 46.00 | -17.3 | 1.00 V | 91 | 11.14 | 17.55 |

- 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.



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4.2.7 TEST RESULTS(BELOW 1GHz, MODE 2)

BELOW 1GHz WORST-CASE DATA :

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|--------------------------|------------------------------------|--------------------|---------------------------|
| CHANNEL | 3G card: CH 810 Wi-Fi: 11g CH 6 | FREQUENCY RANGE | 30-1000 MHz |
| INPUT POWER | 120Vac, 60 Hz | DETECTOR FUNCTION | Peak (PK) Average (AV) |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 72%RH 1022hPa | TESTED BY | Frank Liu |

| 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 | 122.90 | 25.0 QP | 43.50 | -18.5 | 1.00 H | 279 | 12.14 | 12.87 |
| 2 | 150.93 | 29.8 QP | 43.50 | -13.7 | 1.00 H | 0 | 15.28 | 14.50 |
| 3 | 181.27 | 27.9 QP | 43.50 | -15.6 | 1.00 H | 0 | 15.93 | 12.01 |
| 4 | 267.25 | 25.7 QP | 46.00 | -20.3 | 1.00 H | 95 | 11.08 | 14.64 |
| 5 | 396.61 | 29.5 QP | 46.00 | -16.6 | 1.00 H | 165 | 10.91 | 18.54 |
| 6 | 855.50 | 31.7 QP | 46.00 | -14.3 | 1.00 H | 20 | 4.22 | 27.52 |

| 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 | 44.60 | 31.3 QP | 40.00 | -8.7 | 1.00 V | 280 | 17.49 | 13.80 |
| 2 | 120.00 | 30.3 QP | 43.50 | -13.3 | 1.00 V | 19 | 17.77 | 12.48 |
| 3 | 131.27 | 23.4 QP | 43.50 | -20.1 | 1.00 V | 214 | 9.36 | 14.00 |
| 4 | 160.00 | 27.3 QP | 43.50 | -16.2 | 1.00 V | 213 | 11.56 | 15.75 |
| 5 | 200.00 | 19.5 QP | 43.50 | -24.0 | 1.00 V | 38 | 8.28 | 11.20 |
| 6 | 250.00 | 24.0 QP | 46.00 | -22.1 | 1.00 V | 76 | 10.06 | 13.89 |
| 7 | 375.00 | 23.6 QP | 46.00 | -22.4 | 1.00 V | 97 | 5.59 | 17.98 |

- 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.



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4.2.8 TEST RESULTS(ABOVE 1GHz, MODE 1)

Above 1GHz WORST-CASE DATA :

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|---------------------------------|-----------------------------|--------------------------|---------------------------|
| CHANNEL | WiMAX: M Wi-Fi: 11g CH 6 | FREQUENCY RANGE | 1 ~25GHz |
| INPUT POWER | 120Vac, 60 Hz | DETECTOR FUNCTION | Peak (PK) Average (AV) |
| ENVIRONMENTAL CONDITIONS | 18deg. C, 63%RH 1022hPa | TESTED BY | Wen Yu |

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 | 4874.00 | 44.00 PK | 74.00 | -30.0 | 1.25 H | 271 | 6.77 | 37.23 |
| 2 | 4874.00 | 36.10 AV | 54.00 | -17.9 | 1.25 H | 271 | -1.13 | 37.23 |
| 3 | 5174.30 | 49.90 PK | 70.20 | -20.3 | 1.22 H | 51 | 12.00 | 37.90 |
| 4 | 7311.00 | 50.50 PK | 74.00 | -23.5 | 1.06 H | 61 | 6.14 | 44.36 |
| 5 | 7311.00 | 39.50 AV | 54.00 | -14.5 | 1.06 H | 61 | -4.86 | 44.36 |
| 6 | 7760.40 | 49.30 PK | 70.20 | -20.9 | 1.54 H | 110 | 4.07 | 45.23 |
| 7 | 10349.00 | 43.50 PK | 70.20 | -26.7 | 1.55 H | 123 | -5.71 | 49.21 |
| 8 | 12936.10 | 44.20 PK | 70.20 | -26.0 | 1.05 H | 124 | -5.92 | 50.12 |

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 | 4874.00 | 43.70 PK | 74.00 | -30.3 | 1.15 V | 156 | 6.47 | 37.23 |
| 2 | 4874.00 | 34.80 AV | 54.00 | -19.2 | 1.15 V | 156 | -2.43 | 37.23 |
| 3 | 5174.30 | 49.00 PK | 70.20 | -21.2 | 1.14 V | 106 | 11.10 | 37.90 |
| 4 | 7311.00 | 50.30 PK | 74.00 | -23.7 | 1.07 V | 36 | 5.94 | 44.36 |
| 5 | 7311.00 | 39.20 AV | 54.00 | -14.8 | 1.07 V | 36 | -5.16 | 44.36 |
| 6 | 7760.40 | 48.10 PK | 70.20 | -22.1 | 1.26 V | 251 | 2.87 | 45.23 |
| 7 | 10349.00 | 45.60 PK | 70.20 | -24.6 | 1.10 V | 52 | -3.61 | 49.21 |
| 8 | 12936.10 | 49.20 PK | 70.20 | -21.0 | 1.00 V | 256 | -0.92 | 50.12 |

- 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.



4.2.9 TEST RESULTS(ABOVE 1GHz, MODE 2)

Above 1GHz WORST-CASE DATA :

| EUT TEST CONDITION | | MEASUREMENT DETAIL | |
|---------------------------------|------------------------------------|--------------------------|---------------------------|
| CHANNEL | 3G card: CH 810 Wi-Fi: 11g CH 6 | FREQUENCY RANGE | 1 ~25GHz |
| INPUT POWER | 120Vac, 60 Hz | DETECTOR FUNCTION | Peak (PK) Average (AV) |
| ENVIRONMENTAL CONDITIONS | 18deg. C, 63%RH 1022hPa | TESTED BY | Wen Yu |

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 | 3819.6 | 53.2 PK | 82.20 | -29.0 | 1.06 H | 115 | 18.84 | 34.36 |
| 2 | 4874.00 | 44.1 PK | 74.00 | -29.9 | 1.26 H | 280 | 6.87 | 37.23 |
| 3 | 4874.00 | 35.2 AV | 54.00 | -18.8 | 1.26 H | 280 | -2.03 | 37.23 |
| 4 | 5729.40 | 51.4 PK | 82.20 | -30.8 | 1.12 H | 54 | 12.20 | 39.20 |
| 5 | 7311.00 | 50.4 PK | 74.00 | -23.6 | 1.06 H | 60 | 6.04 | 44.36 |
| 6 | 7311.00 | 39.3 AV | 54.00 | -14.7 | 1.06 H | 60 | -5.06 | 44.36 |
| 7 | 7639.20 | 50.2 PK | 82.20 | -32.0 | 1.55 H | 120 | 5.10 | 45.10 |
| 8 | 9549.00 | 47.8 PK | 82.20 | -34.4 | 1.85 H | 152 | -0.71 | 48.51 |

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 | 3819.60 | 52.6 PK | 82.20 | -29.6 | 1.13 V | 125 | 18.24 | 34.36 |
| 2 | 4874.00 | 43.7 PK | 74.00 | -30.3 | 1.15 V | 156 | 6.47 | 37.23 |
| 3 | 4874.00 | 34.8 AV | 54.00 | -19.2 | 1.15 V | 156 | -2.43 | 37.23 |
| 4 | 5729.40 | 52.1 PK | 82.20 | -30.1 | 1.15 V | 120 | 12.90 | 39.20 |
| 5 | 7311.00 | 50.3 PK | 74.00 | -23.7 | 1.07 V | 36 | 5.94 | 44.36 |
| 6 | 7311.00 | 39.2 AV | 54.00 | -14.8 | 1.07 V | 36 | -5.16 | 44.36 |
| 7 | 7639.20 | 49.8 PK | 82.20 | -32.4 | 1.02 V | 261 | 4.70 | 45.10 |
| 8 | 9549.00 | 48.2 PK | 82.20 | -34.0 | 1.11 V | 57 | -0.31 | 48.51 |

- 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 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025:

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

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

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Email: service@adt.com.tw

Web Site: www.adt.com.tw

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



6 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

--- END ---