



FCC TEST REPORT

REPORT NO.: RF980615A03

MODEL NO.: CTH-461, CTH-460, CTH-661

RECEIVED: June 15, 2009

TESTED: July 13 ~ 17, 2009

ISSUED: July 22, 2009

APPLICANT: PRIMAX ELECTRONICS LTD.

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

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1 CERTIFICATION

PRODUCT: Pen & Touch Tablet
BRAND NAME: WACOM
MODEL NO.: CTH-461, CTH-460, CTH-661
APPLICANT: PRIMAX ELECTRONICS LTD.
TESTED: July 13 ~ 17, 2009
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: FCC Part 15, Subpart C (Section 15.209),
ANSI C63.4 -2003

The above equipment (model: CTH-461) 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 : *Jessica Cheng* , **DATE:** July 22, 2009
(Jessica Cheng / Specialist)

TECHNICAL ACCEPTANCE : *Jamison Chan* , **DATE:** July 22, 2009
Responsible for RF (Jamison Chan / Supervisor)

APPROVED BY : *Ken Liu* , **DATE:** July 22, 2009
(Ken Liu / Assistant Manager)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 15, Subpart C | | | |
|------------------------------------------|-------------------------|--------|--------------------------------------------------------------------------------|
| STANDARD PARAGRAPH | TEST TYPE | RESULT | REMARK |
| 15.207 | Conducted Emission Test | PASS | Meet the requirement of limit. Minimum passing margin is -19.63dB at 0.216MHz. |
| 15.209 | Radiated Emission Test | PASS | Meet the requirement of limit. Minimum passing margin is -4.38dB at 47.495MHz. |

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 | UNCERTAINTY |
|---------------------|-------------|
| Conducted emissions | 2.44 dB |
| Radiated emissions | 3.72 dB |

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

| | |
|------------------------------------------|---------------------------|
| PRODUCT | Pen & Touch Tablet |
| MODEL NO. | CTH-461, CTH-460, CTH-661 |
| FCC ID | EMJTCTH661 |
| POWER SUPPLY | 5Vdc from PC |
| MODULATION TYPE | FSK |
| CARRIER FREQUENCY OF EACH CHANNEL | 666kHz |
| NUMBER OF CHANNEL | 1 |
| ANTENNA TYPE | Integral antenna |
| DATA CABLE | Shielded USB cable (1.5m) |
| I/O PORTS | N/A |
| ASSOCIATED DEVICES | Refer to note 1 as below |

NOTE:

1. The EUT is the ideal tool to enhance your presentations and documents. The pen (Brand: WACOM, Model: LP-160E for model CH-460; Brand: WACOM, Model: LP-161E for model CTH-461, CTH-661) will be sold together with the EUT.
2. The EUT has several models, which are identical to each other except for outer appearance differences only, as follows:

| Model No. | Differences |
|------------------|------------------------------|
| CTH-461 | outer appearance differences |
| CTH-460 | |
| CTH-661 | |

During the test, **model no.: CTH-461** was selected as the representative one for the test and only its test data were recorded in this report.

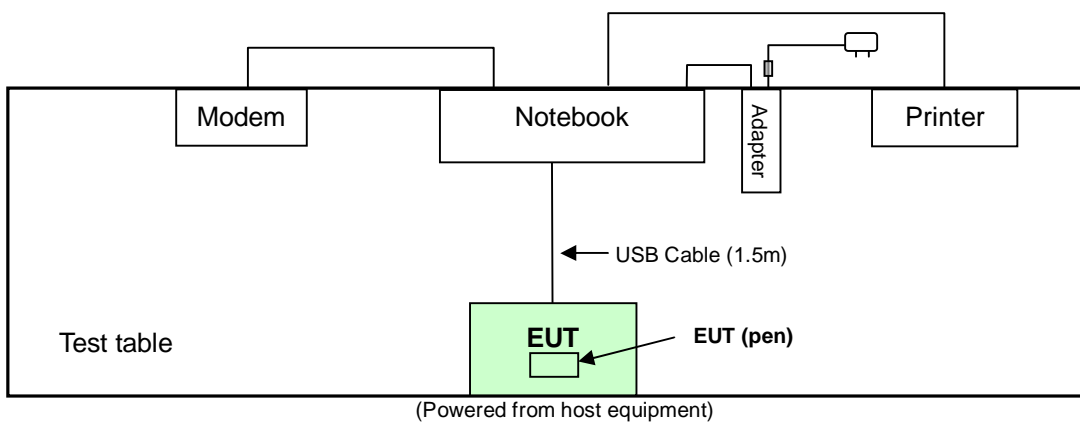
3. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

1 channel was provided to this EUT

| Channel | Frequency (MHz) |
|---------|-----------------|
| 1 | 666kHz |

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

| EUT CONFIGURE MODE | Applicable to | | Description |
|--------------------|---------------|-------|-------------|
| | PLC | RE<1G | |
| - | √ | √ | - |

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

POWER LINE CONDUCTED EMISSION TEST:

Following channel(s) was (were) selected for the final test as listed below.

| AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TYPE |
|-------------------|----------------|-----------------|
| 1 | 1 | FSK |

RADIATED EMISSION TEST (BELOW 1 GHZ):

Following channel(s) was (were) selected for the final test as listed below.

| AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TYPE |
|-------------------|----------------|-----------------|
| 1 | 1 | FSK |



3.3 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:

FCC Part 15, Subpart C. (15.209)
ANSI C63.4 -2003

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

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

3.4 DESCRIPTION OF SUPPORT UNITS

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

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|----------------------|-------|-----------|-------------|------------------|
| 1 | PRINTER | EPSON | LQ-300+ | DCGY017054 | FCC DoC Approved |
| 2 | MODEM | ACEEX | 1414 | 980020520 | IFAXDM1414 |
| 3 | NOTEBOOK COMPUTER | DELL | PP05L | 20375526736 | FCC DoC Approved |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|------------------------------------------------------------------------------------------------------|
| 1 | 1.8m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core |
| 2 | 1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core. |
| 3 | N/A |

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

4 TEST PROCEDURE AND RESULT

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 | 838251/021 | Mar. 05, 2009 | Mar. 04, 2010 |
| ROHDE & SCHWARZ Artificial Mains Network (for EUT) | ESH3-Z5 | 100218 | Nov. 26, 2008 | Nov. 25, 2009 |
| LISN With Adapter (for EUT) | AD10 | C10Ada-001 | Nov. 26, 2008 | Nov. 25, 2009 |
| ROHDE & SCHWARZ Artificial Mains Network (for peripherals) | ESH3-Z5 | 100219 | Nov. 20, 2008 | Nov. 19, 2009 |
| Software | ADT_Cond_V7.3.7 | NA | NA | NA |
| Software | ADT_ISN_V7.3.7 | NA | NA | NA |
| RF cable (JYEBAO) | 5D-FB | Cable-C10.01 | Feb. 26, 2009 | Feb. 25, 2010 |
| SUHNER Terminator (For ROHDE & SCHWARZ LISN) | 65BNC-5001 | E1-010773 | Feb. 27, 2009 | Feb. 26, 2010 |

- 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. 10.
 3. The VCCI Site Registration No. C-1852.

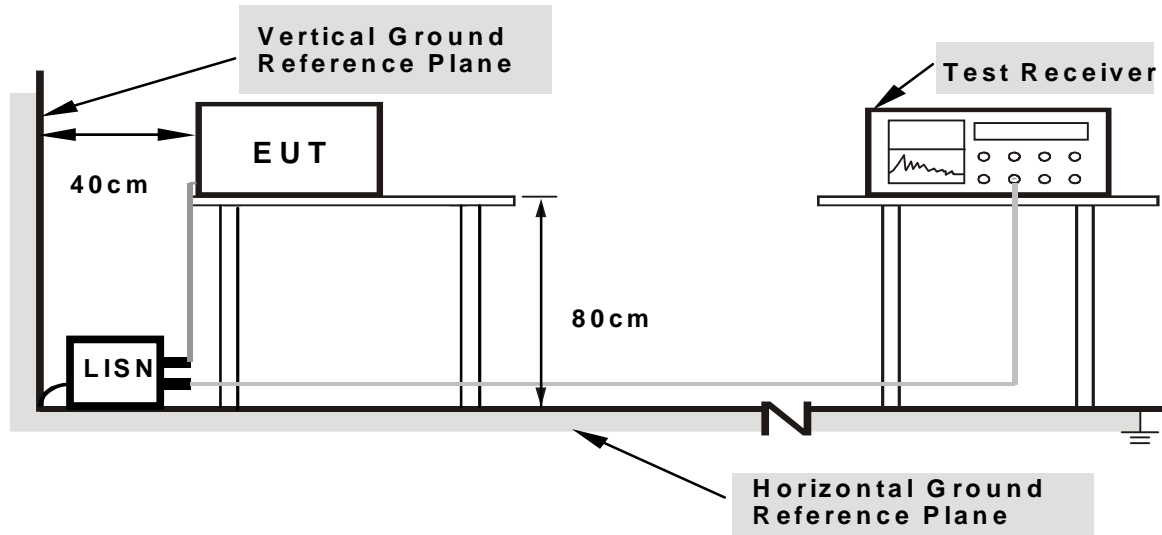
4.1.3 TEST PROCEDURES

- 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 80cm from EUT and at least 80cm from other units and other metal planes support units.

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

4.1.6 EUT OPERATING CONDITIONS

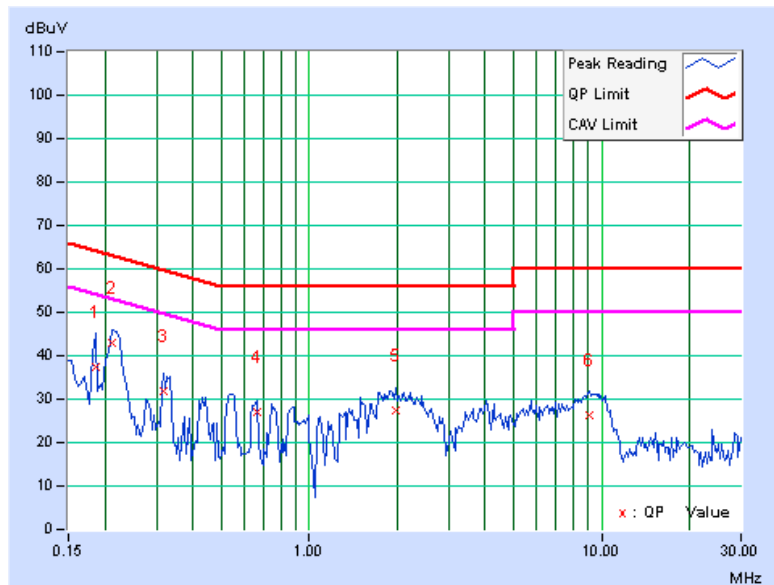
- a. Connected the Touch Tablet (EUT) to Notebook via USB cable.
- b. Turned on the power of all equipment.
- c. Notebook ran a test program to enable all functions.
- d. Set the EUT under transmission/receiving condition continuously at specific channel frequency.
- e. Notebook read and wrote messages from HDD.
- f. Notebook sent messages to printer and the printer printed them out.
- g. Notebook sent messages to modem.
- h. Steps e-h were repeated.

4.1.7 TEST RESULTS

| | | | |
|---------------------------------|---------------------------|----------------------|--------------|
| TEST MODE | Operating | 6dB BANDWIDTH | 9 kHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | PHASE | Line 1 |
| ENVIRONMENTAL CONDITIONS | 27deg. C, 77% RH, 1003hPa | TESTED BY | Jamison Chan |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|-------------|-------------------|-------------------------|-------|--------------------------|-------|-----------------|-------|-------------|-------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.185 | 0.12 | 37.25 | - | 37.37 | - | 64.25 |
| 2 | 0.213 | 0.13 | 42.65 | - | 42.78 | - | 63.11 | 53.11 | -20.33 | - |
| 3 | 0.318 | 0.18 | 31.64 | - | 31.82 | - | 59.76 | 49.76 | -27.94 | - |
| 4 | 0.661 | 0.23 | 26.84 | - | 27.07 | - | 56.00 | 46.00 | -28.93 | - |
| 5 | 1.984 | 0.28 | 27.19 | - | 27.47 | - | 56.00 | 46.00 | -28.53 | - |
| 6 | 9.039 | 0.60 | 25.63 | - | 26.23 | - | 60.00 | 50.00 | -33.77 | - |

- 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.



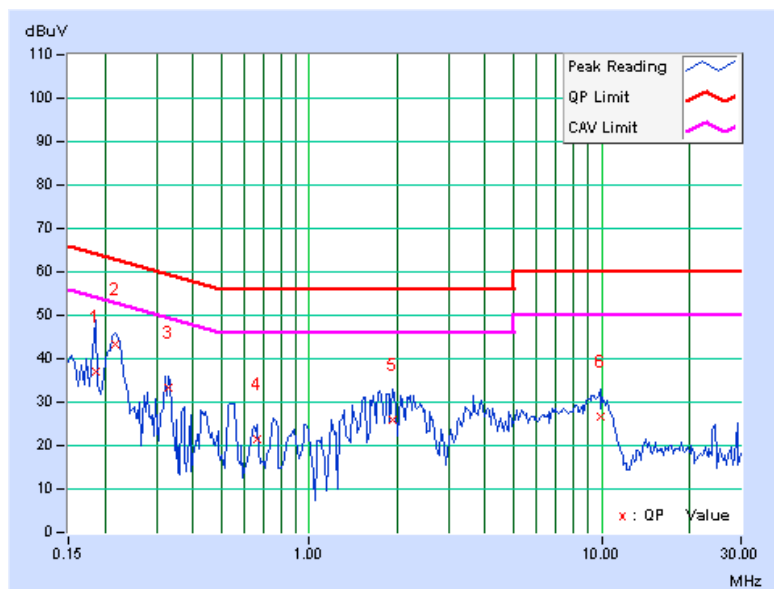


A D T

| | | | |
|---------------------------------|---------------------------|----------------------|--------------|
| TEST MODE | Operating | 6dB BANDWIDTH | 9 kHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | PHASE | Line 2 |
| ENVIRONMENTAL CONDITIONS | 27deg. C, 77% RH, 1003hPa | TESTED BY | Jamison Chan |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|--------------|-------------------|-------------------------|-------|--------------------------|-------|-----------------|--------------|---------------|-------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.185 | 0.09 | 37.05 | - | 37.14 | - | 64.25 |
| 2 | 0.216 | 0.10 | 43.23 | - | 43.33 | - | 62.96 | 52.96 | -19.63 | - |
| 3 | 0.330 | 0.16 | 33.09 | - | 33.25 | - | 59.46 | 49.46 | -26.21 | - |
| 4 | 0.660 | 0.21 | 21.13 | - | 21.34 | - | 56.00 | 46.00 | -34.66 | - |
| 5 | 1.922 | 0.25 | 25.50 | - | 25.75 | - | 56.00 | 46.00 | -30.25 | - |
| 6 | 9.980 | 0.52 | 26.30 | - | 26.82 | - | 60.00 | 50.00 | -33.18 | - |

- 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

FOR FREQUENCY BELOW 30MHz

| FREQUENCY (MHz) | FIELD STRENGTH (dBuV/m) | | MEASUREMENT DISTANCE (meters) |
|-----------------|-------------------------|-------------|-------------------------------|
| | uV/m | dBuV/m | |
| 0.009 – 0.490 | 2400 / F (kHz) | 48.52-13.80 | 300 |
| 0.490 – 1.705 | 24000 / F (kHz) | 33.80-22.97 | 30 |
| 1.705 – 30.0 | 30 | 29.54 | 30 |

FOR FREQUENCY BETWEEN 30-1000MHz

| FREQUENCY (MHz) | Class A (at 10m) | | Class B (at 3m) | |
|-----------------|------------------|--------|-----------------|--------|
| | uV/m | dBuV/m | uV/m | dBuV/m |
| 30-88 | 90 | 39.1 | 100 | 40.0 |
| 88-216 | 150 | 43.5 | 150 | 43.5 |
| 216-960 | 210 | 46.4 | 200 | 46.0 |
| Above 960 | 300 | 49.5 | 500 | 54.0 |

FOR FREQUENCY ABOVE 1000MHz

| FREQUENCY (MHz) | Class A (at 10m) | | Class B (at 3m) | |
|-----------------|------------------|---------|-----------------|---------|
| | PEAK | AVERAGE | PEAK | AVERAGE |
| Above 1000 | 80.0 | 60.0 | 74.0 | 54.0 |

- Note: (1) The lower limit shall apply at the transition frequencies.
 (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
 (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of fieldstrengths specified above.



4.2.2 TEST INSTRUMENT

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|-----------------------------------|------------------------------|----------------------|-----------------|------------------|
| HP Preamplifier | 8447D | 2432A03504 | May 04, 2009 | May 03, 2010 |
| HP Preamplifier | 8449B | 3008A01924 | Sep. 03, 2008 | Sep. 02, 2009 |
| HP Preamplifier | 8449B | 3008A01292 | Aug. 06, 2008 | Aug. 05, 2009 |
| ROHDE & SCHWARZ TEST RECEIVER | ESI7 | 836697/012 | Dec. 04, 2008 | Dec. 03, 2009 |
| Schwarzbeck Antenna | VULB 9168 | 137 | Apr. 29, 2009 | Apr. 28, 2010 |
| Schwarzbeck Antenna | VHBA 9123 | 480 | Apr. 21, 2009 | Apr. 20, 2010 |
| ADT. Turn Table | TT100 | 0306 | NA | NA |
| ADT. Tower | AT100 | 0306 | NA | NA |
| Software | ADT_Radiated_V 7.6.15.9.2 | NA | NA | NA |
| SUHNER RF cable | SF104-26.5 | CABLE-CH6-17m -01 | Aug. 22, 2008 | Aug. 21, 2009 |
| ROHDE & SCHWARZ Spectrum Analyzer | FSP 40 | 100036 | Apr. 03, 2009 | Apr. 02, 2010 |
| Loop Antenna R & S | HFH2-Z2 | 100070 | Jan. 14, 2009 | Jan. 13, 2010 |

- 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 and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 3. The test was performed in Chamber No. 6.
 4. The Industry Canada Reference No. IC 7450E-6.
 5. The FCC Site Registration No. is 447212.

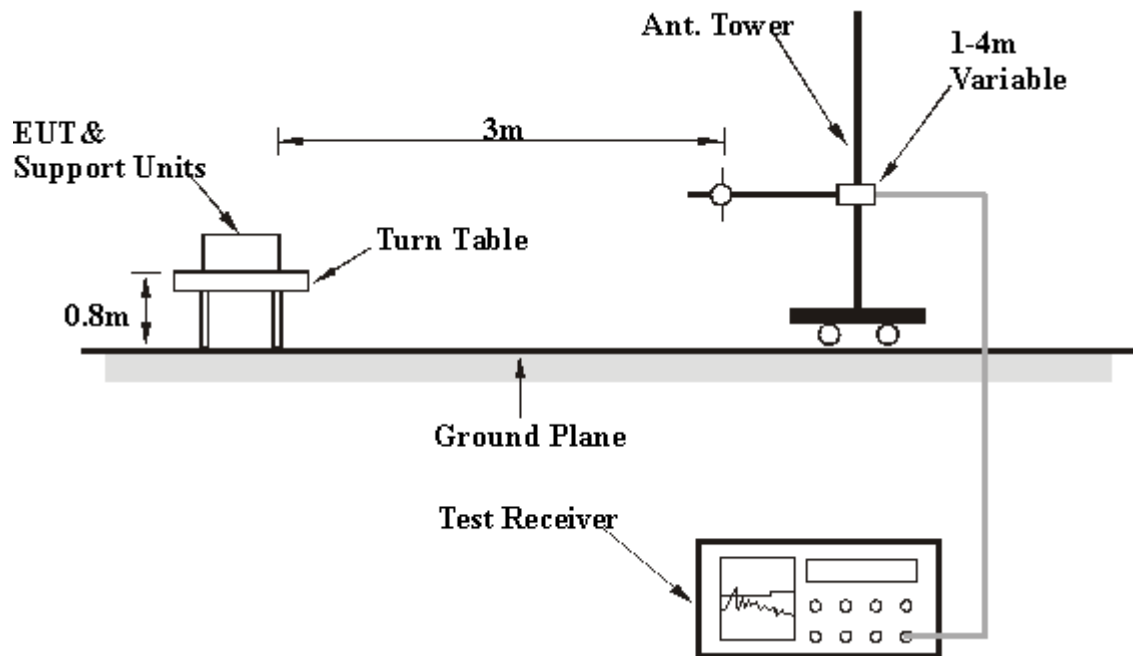
4.2.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The 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 lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak method or average method as specified and then reported in data sheet.
- g. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the interference antenna and the detect function was set to Peak or Average.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item in this test report - Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITION

Same as item 4.1.6.

4.2.7 TEST RESULT

| | | | |
|---------------------------------|------------------------------|--------------------------|----------------|
| TEST MODE | Operating | FREQUENCY RANGE | 9 kHz ~ 30 MHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | DETECTOR FUNCTION | Quasi-Peak |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 55% RH, 1002hPa | TESTED BY | Nick Chen |

| ANTENNA POLARITY & TEST DISTANCE: 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 | 0.666 | 61.33 QP | 71.13 | -9.80 | 1.00 | 327 | 42.17 | 19.16 |
| 2 | 2.000 | 46.43 QP | 69.54 | -23.11 | 1.00 | 321 | 26.88 | 19.55 |
| 3 | 3.332 | 40.18 QP | 69.54 | -29.36 | 1.00 | 342 | 20.64 | 19.54 |
| 4 | 4.669 | 36.49 QP | 69.54 | -33.05 | 1.00 | 330 | 16.93 | 19.56 |
| 5 | 6.001 | 34.03 QP | 69.54 | -35.51 | 1.00 | 335 | 14.43 | 19.60 |
| 6 | 7.341 | 31.07 QP | 69.54 | -38.47 | 1.00 | 347 | 11.42 | 19.65 |
| 7 | 8.667 | 30.80 QP | 69.54 | -38.74 | 1.00 | 311 | 11.08 | 19.72 |

- 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. Above limits have been translated by the formula
 6. Loop antenna was used for all radiated emission below 30MHz.

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

Example:

$$\begin{aligned}
 24000/666\text{kHz} &= 36.03 \text{ uV/m} && 30\text{m} \\
 &= 31.13 \text{ dBuV/m} && 30\text{m} \\
 &= 31.13 + 20\log(30/3)^2 && 3\text{m} \\
 &= 71.13 \text{ dBuV/m}
 \end{aligned}$$

| | | | |
|---------------------------------|------------------------------|--------------------------|------------|
| TEST MODE | Operating | FREQUENCY RANGE | 30-1000MHz |
| INPUT POWER (SYSTEM) | 120Vac, 60 Hz | DETECTOR FUNCTION | Quasi-Peak |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 55% RH, 1002hPa | TESTED BY | Nick Chen |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| No. | Freq. (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (m) | Table Angle (Degree) | Raw Value (dBuV) | Correction Factor (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 47.495 | 29.82 QP | 40.00 | -10.18 | 1.14 H | 118 | 16.60 | 13.22 |
| 2 | 107.756 | 31.44 QP | 43.50 | -12.06 | 1.22 H | 229 | 21.59 | 9.85 |
| 3 | 156.353 | 30.88 QP | 43.50 | -12.62 | 1.07 H | 247 | 16.72 | 14.16 |
| 4 | 191.343 | 35.38 QP | 43.50 | -8.12 | 1.12 H | 241 | 23.61 | 11.77 |
| 5 | 216.613 | 36.79 QP | 46.00 | -9.21 | 1.15 H | 208 | 24.96 | 11.83 |
| 6 | 346.854 | 34.13 QP | 46.00 | -11.87 | 1.06 H | 82 | 17.50 | 16.63 |
| 7 | 865.872 | 36.70 QP | 46.00 | -9.30 | 1.00 H | 232 | 9.10 | 27.60 |

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 | 47.495 | 35.62 QP | 40.00 | -4.38 | 1.00 V | 310 | 22.40 | 13.22 |
| 2 | 72.766 | 25.04 QP | 40.00 | -14.96 | 1.00 V | 187 | 13.53 | 11.51 |
| 3 | 109.699 | 31.38 QP | 43.50 | -12.12 | 1.00 V | 286 | 21.29 | 10.09 |
| 4 | 199.118 | 29.27 QP | 43.50 | -14.23 | 1.00 V | 274 | 17.99 | 11.28 |
| 5 | 346.854 | 30.90 QP | 46.00 | -15.10 | 1.00 V | 175 | 14.27 | 16.63 |
| 6 | 465.431 | 30.39 QP | 46.00 | -15.61 | 1.00 V | 256 | 10.31 | 20.07 |
| 7 | 731.743 | 35.01 QP | 46.00 | -10.99 | 1.05 V | 262 | 9.57 | 25.44 |
| 8 | 865.872 | 40.09 QP | 46.00 | -5.91 | 1.17 V | 247 | 12.49 | 27.60 |

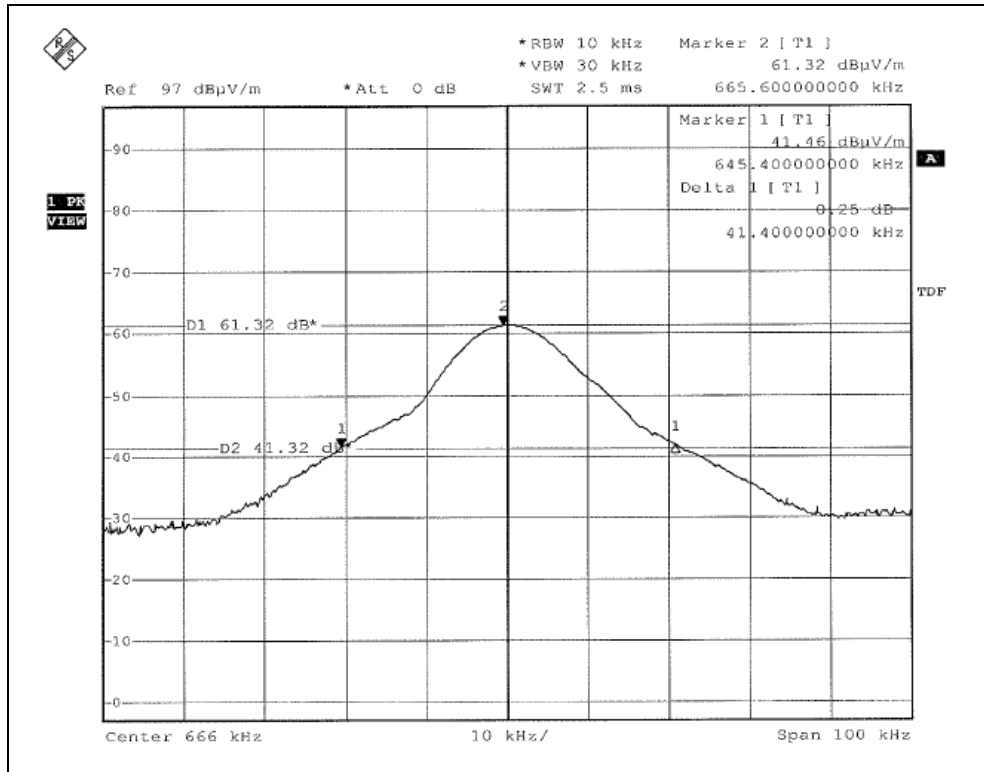
- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.



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4.2.8 TEST RESULTS (SPECTRUM BANDWIDTH)

666kHz





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5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



6 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 by the following approval agencies according to ISO/IEC 17025.

| | |
|--------------------|----------------------|
| USA | FCC, NVLAP |
| Germany | TUV Rheinland |
| Japan | VCCI |
| Norway | NEMKO |
| Canada | INDUSTRY CANADA, CSA |
| R.O.C. | TAF, BSMI, NCC |
| Netherlands | Telefication |
| Singapore | GOST-ASIA(MOU) |
| Russia | CERTIS(MOU) |

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: 886-2-26051924

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

Web Site: www.adt.com.tw

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



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7 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---