# FCC TEST REPORT

## for

## GPS Navigator (Connect to PC)

| | | |
|---|---|---|
| Model No. | : | KW-GM7001 |
| FCC ID | : | WNHKW-GM7001 |
| Applicant | : | Kinwei Technologies (Shenzhen) Co., Ltd<br>22th Building, Chentian Industrial Zone, Bao'an District,<br>Shenzhen, 518102, China |
| Regulation | : | ***FCC Part 15.107 Subpart B***<br>***FCC Part 15.109 Subpart B*** |
| Prepared by | : | AOV Testing Technology Co., Ltd<br>AOV Building, Xueyuan Road East, University City, Shenzhen<br>(Tanglang Village, Xili Town, Nanshan District), China |
| Test Date | : | February 19-24, 2008 |
| Date of Report | : | February 25, 2009 |

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# TEST REPORT DECLARATION

| | | |
|---|---|---|
| Applicant | : | Kinwei Technologies (Shenzhen) Co., Ltd |
| Manufacturer | : | Kinwei Technologies (Shenzhen) Co., Ltd |
| EUT Description | : | GPS Navigator |

**Test Procedure Used**:
**FCC Part 15.107, 15.109 Subpart B**

The E. U. T. listed below has been completed RFI testing by Shenzhen AOV Testing Technology Co., Ltd at the test site of Bontek Compliance Testing Laboratory Ltd. And the Interference emissions can pass **FCC CLASS B** limitations.

The test configurations and the facility comply with the radiated and AC line conducted test site criteria in **ANSI C63.4-2003**.

Date of Test: February 19-24, 2008

Prepared by:

Project Engineer

Reviewer :

Project Manager

# 1. GENERAL INFORMATION

## 1.1 General Information

Applicant : Kinwei Technologies (Shenzhen) Co., Ltd
22th Building, Chentian Industrial Zone, Bao'an District,
Shenzhen, 518102, China

Manufacturer : Kinwei Technologies (Shenzhen) Co., Ltd
22th Building, Chentian Industrial Zone, Bao'an District,
Shenzhen, 518102, China

## 1.2 Test Facility

| | | |
|---|---|---|
| Test Firm | : | Bontek Compliance Testing Laboratory Ltd.<br>Certificated by FCC, Registration No.: 338263 |
| Address | : | FL.1, Building H-3, Hua Qiao Cheng East Industrial Area<br>Qiaocheng East Road, Nanshan, Shenzhen, P.R.China |
| Tel | : | 86-755-86337020 |
| Fax | : | 86-755-86337028 |

## 1.3 Test Instrument Used

| No. | Equipment | Manufacturer | Model No. | S/N | Calculator date |
|---|---|---|---|---|---|
| 1. | EMI Test Receiver | R&S | ESCI | 100687 | 2009-2-22 |
| 2. | EMI Test Receiver | R&S | ESPI | 100097 | 2009-2-22 |
| 3. | Amplifier | HP | 8447D | 1937A02492 | 2009-2-22 |
| 4. | TRILOG Broadband Test-Antenna | SCHWARZBECK | VULB9163 | 9163-324 | 2009-2-22 |
| 5. | Horn Antenna | SCHWARZBECK | BBHA9120A | B08000991-0001 | 2009-2-22 |
| 6. | High Field Biconical Antenna | ELECTRO-METRICS | EM-6913 | 166 | 2009-2-22 |
| 7. | Log Periodic Antenna | ELECTRO-METRICS | EM-6950 | 811 | 2009-2-22 |
| 8. | Remote Active Vertical Antenna | ELECTRO-METRICS | EM-6892 | 304 | 2009-2-22 |
| 9. | Teo Line Single Phase Module | SCHWARZBECK | NSLK8128 | D-69250 | 2009-2-22 |
| 10. | Positioning Controller | C&C | CC-C-1F | MF7802113 | 2009-2-22 |
| 11. | Triple-Loop Antenna | EVERFINE | LLA-2 | 607004 | 2009-2-22 |
| 12. | 10dB attenuator | SCHWARZBECK | MTAIMP-136 | R65.90.0001#06 | 2009-2-22 |

## 1.4 Description of Test System

| | | |
|---|---|---|
| PC | DELL | Vostro 200 ST |
| Monitor | DELL | OG335H |
| Keyboard | DELL | SK-8115 |
| Mouse | DELL | MOC5UO |

# 2. POWERLINE CONDUCTED EMISSION TEST

## 2.1.Test Standard

15.107

## 2.2.Limits

| Frequency MHz | Limits (dBμV) | |
|---|---|---|
| | Quasi-peak Level | Average Level |
| 0.15 ~ 0.50 | 66 ~ 56* | 56 ~ 46* |
| 0.50 ~ 5.00 | 56 | 46 |
| 5.00 ~ 30.00 | 60 | 50 |

Notes:

1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

## 2.3.Test Procedure

The EUT is put on the table that is 0.8m high above the ground and at least away from other Metallic surface 0.4m. The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohms coupling impedance for the testing equipment; and the peripheral equipment powers form other L.I.S.N. Please refer to the block diagram of the test setup and photographs. Both sides of AC line (Line & Neutral) are checked for maximum conducted interference. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables must be changed according to FCC part 15 B.

## 2.4.Test Result

**PASS**

Detailed information, Please refer to the following page.

## Connect to PC

### Line:

| Frequency (MHz) | AV Read Level (dBuV) | AV Limit (dBuV) | AV Margin (dBuV) |
|---|---|---|---|
| 0.1920 | 42.50 | 54 | 11.50 |
| 5.9395 | 38.80 | 50 | 11.20 |
| 15.4015 | 33.10 | 50 | 16.90 |

| Frequency (MHz) | QP Read Level (dBuV) | QP Limit (dBuV) | QP Margin (dBuV) |
|---|---|---|---|
| 0.1860 | 60.10 | 64 | 3.90 |
| 0.2625 | 53.10 | 61 | 7.90 |
| 15.4220 | 48.80 | 60 | 11.20 |

### Neutral:

| Frequency (MHz) | AV Read Level (dBuV) | AV Limit (dBuV) | AV Margin (dBuV) |
|---|---|---|---|
| 0.1875 | 47.30 | 54 | 6.70 |
| 3.3550 | 31.70 | 46 | 14.30 |
| 5.8830 | 38.70 | 50 | 11.30 |

| Frequency (MHz) | QP Read Level (dBuV) | QP Limit (dBuV) | QP Margin (dBuV) |
|---|---|---|---|
| 0.1860 | 60.70 | 64 | 3.30 |
| 0.2040 | 60.20 | 63 | 2.80 |
| 15.4220 | 49.10 | 60 | 10.90 |

# 3. RADIATED EMISSION TEST

## 3.1. Rules Part No.

15.109

## 3.2. Limits

Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency of (MHz) | Emission Field Strength (microvolts/meter) |
|---|---|
| 30 - 88 | 100 (40) |
| 88 - 216 | 150 (43.5) |
| 216 - 960 | 200 (46.0) |
| Above 960 | 500 (54.0) |

## 3.3. Test Procedure

**ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES:**

The EUT is placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (log periodical antenna and horn antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz.

The spectrum was scanned from 30 MHz to 1000MHz harmonic of the fundamental.

## 3.4. Test Result

**PASS**

## Connected to PC:

Horizontal:

| Frequency (MHz) | PK (dBuV/m) | Read Level (dBuV/m) | Limit (dBuV/m) | Margin (dBuV/m) |
|---|---|---|---|---|
| 54.800 | 32.80 | 28.50 | 40.0 | 11.50 |
| 121.180 | 36.80 | 33.10 | 43.5 | 10.40 |
| 185.200 | 34.90 | 32.70 | 43.5 | 10.80 |
| 191.020 | 35.80 | 33.00 | 43.5 | 10.50 |
| 194.900 | 35.30 | 32.90 | 43.5 | 10.60 |
| 743.150 | 36.70 | 35.10 | 46.0 | 10.90 |

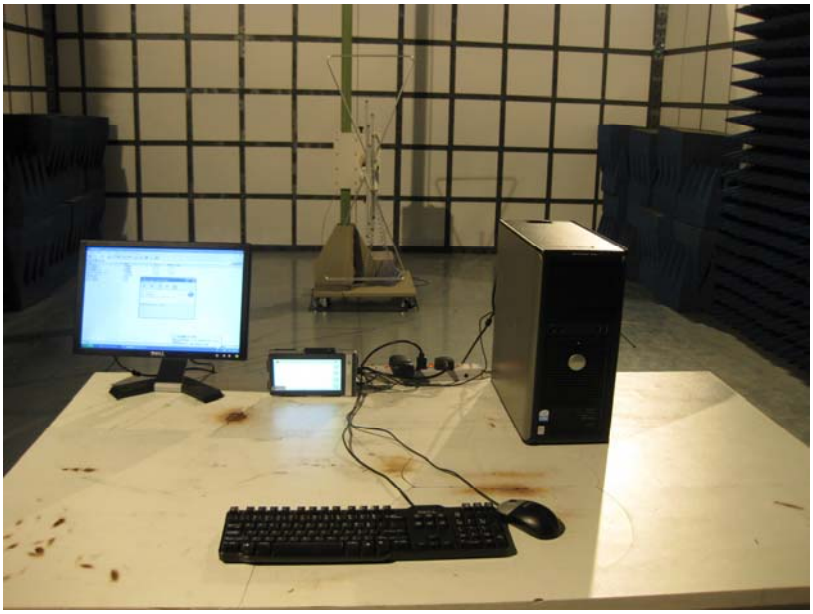
Vertical:

| Frequency (MHz) | PK (dBuV/m) | Read Level (dBuV/m) | Limit (dBuV/m) | Margin (dBuV/m) |
|---|---|---|---|---|
| 33.880 | 35.60 | 31.40 | 40.0 | 8.60 |
| 68.800 | 38.90 | 33.70 | 40.0 | 6.30 |
| 88.200 | 35.20 | 33.10 | 43.5 | 10.40 |
| 121.180 | 37.30 | 34.50 | 43.5 | 9.00 |
| 221.080 | 34.40 | 30.10 | 46.0 | 15.90 |
| 943.700 | 36.30 | 34.10 | 46.0 | 11.90 |

# 4. PHOTOGRAPH OF TEST

Conducted Emission

Radiated Emission




DELL