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## MPE TEST REPORT

### FCC Per 47 CFR 2.1093

**Report Reference No.** ..... CTL1311111736-WM

FCC ID ..... :

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Date of issue ..... Nov. 21, 2013

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**Test Firm** ..... **Bontek Compliance Testing Laboratory Ltd**

Address ..... 1/F, Block East H-3, OCT Eastern Ind. Zone, Qiaocheng East  
Road, Nanshan, Shenzhen, China

**Applicant's name** ..... **Shenzhen Tianzheng Hongye Technology Co. Ltd.**

Address ..... Building C, Guancheng Science and Technology Park, Zhenxing  
Road, Carp River Industrial Zone, Gongming, Shenzhen City,  
Guangdong Province, China

#### **Test specification:**

Standard ..... **FCC Per 47 CFR 2.1093**

TRF Originator ..... Shenzhen CTL Electromagnetic Technology Co., Ltd.

Master TRF ..... Dated 2011-01

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**Test item description** ..... **MID760RK**

Trade Mark ..... **2ABEPTA2511-7**

Model/Type reference ..... **TA2511-7**

Work frequency ..... 802.11b/g/n: 2412~2462MHz, 802.11n(40MHz): 2422~2452

Type of modulation ..... 802.11b DSSS, 802.11g/n: OFDM

Data Rate ..... 802.11b: 1/2/5.5/11 Mbps, 802.11g: 6/9/12/18/24/36/48/54 Mbps  
802.11n: up to 150 Mbps

Antenna Gain ..... -0.5 dBi

Antenna type ..... Internal

Power Supply ..... DC3.7V from battery

Result ..... **Positive**

# Test Report

|                   |                  |                                |
|-------------------|------------------|--------------------------------|
| Test Report No. : | CTL1311111736-WM | Nov. 21, 2013<br>Date of issue |
|-------------------|------------------|--------------------------------|

Equipment under Test : MID760RK

Model /Type : TA2511-7

Listed Models : /

Applicant : **Shenzhen Tianzheng Hongye Technology Co.Ltd.**

Address : Building C, Guancheng Science and Technology Park, Zhenxing Road, Carp River Industrial Zone, Gongming, Shenzhen City, Guangdong Province, China

Manufacturer : **Shenzhen Tianzheng Hongye Technology Co.Ltd.**

Address : Building C, Guancheng Science and Technology Park, Zhenxing Road, Carp River Industrial Zone, Gongming, Shenzhen City, Guangdong Province, China

**Test Result** according to the standards on page 4:

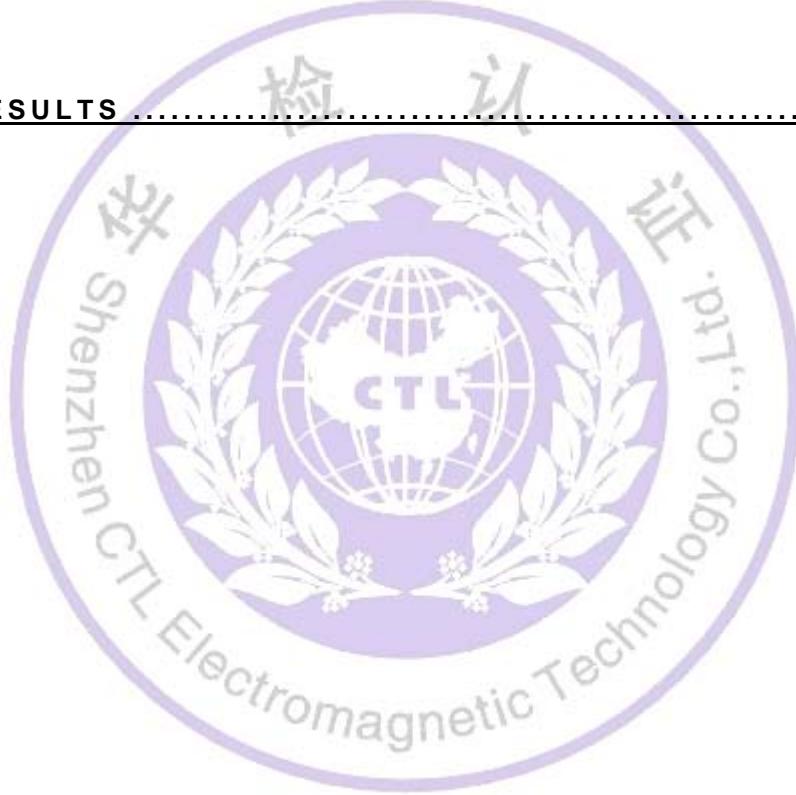
**Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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## 1. SUMMARY

### 1.1. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

### 1.2. Equipment Under Test

#### Power supply system utilised

Power supply voltage :  120V / 60 Hz  115V / 60Hz  
 12 V DC  24 V DC  
 Other (specified in blank below)  
DC 3.7V from battery

### 1.3. Description of the test mode

IEEE 802.11b/g/n: Thirteen channels are provided to the EUT, only eleventh channels used for USA.

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

### 1.4. NOTE

The EUT is an 802.11b/g/n tablet PC. The functions of the EUT listed as below:

|                         | Test Standards                           | Reference Report |
|-------------------------|--|------------------|
| WLAN 802.11b/g, 802.11n | FCC Part 15 Subpart C<br>(Section15.247) | CTL1311111736-WF |
| WLAN 802.11b/g, 802.11n | FCC Per 47 CFR 2.1093                    | CTL1311111736-WM |

The frequency bands used in this EUT are listed as follows

| Frequency Band(MHz) | 2400-2483.5 | 5150-5350 | 5470-5725 | 5725-5850 |
|---------------------|-------------|-----------|-----------|-----------|
| 802.11b             | √           | -         | -         | -         |
| 802.11g             | √           | -         | -         | -         |
| 802.11n(20MHz)      | √           | -         | -         | -         |
| 802.11n(40MHz)      | √           | -         | -         | -         |

| Modulation Mode | TX Function |
|-----------------|-------------|
| 802.11b         | 1 TX        |
| 802.11g         | 1 TX        |
| 802.11n(20MHz)  | 1 TX        |
| 802.11n(40MHz)  | 1 TX        |

## 2. TEST ENVIRONMENT

### 2.1. Address of the test laboratory

Bontek Compliance Testing Laboratory Ltd  
1/F, Block East H-3, OCT Eastern Ind. Zone, Qiaocheng East Road, Nanshan, Shenzhen, China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55022 requirements

### 2.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

|                       |              |
|-----------------------|--------------|
| Temperature:          | 15-35 ° C    |
| Humidity:             | 30-60 %      |
| Atmospheric pressure: | 950-1050mbar |

### 2.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Bontek Compliance Testing Laboratory Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Bontek laboratory is reported:

| Test                  | Range      | Measurement Uncertainty | Notes |
|-----------------------|------------|-------------------------|-------|
| Radiated Emission     | 30~1000MHz | 4.10dB                  | (1)   |
| Radiated Emission     | 1~12.75GHz | 4.32dB                  | (1)   |
| Conducted Disturbance | 0.15~30MHz | 3.22dB                  | (1)   |

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

### **3. Method of measurement**

#### **3.1. Applicable Standard**

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1093 RF exposure is calculated.

#### **3.2. Limit**

According to KDB 447498 D01 v05 General RF Exposure Guidance, the SAR Test Exclusion Power Thresholds is 10mW.



## 4. TEST RESULTS

This is a portable device. Per KDB 447498 D01 v05, the device used distance is 5mm from body.

### For 802.11 b

| Test Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Nemeric) | E.I.R.P (mW) | Limit (mW) | Test Results |
|----------------------|--------------------|-------------------|--------------------|------------------------|--------------|------------|--------------|
| 2412                 | 9.54               | 8.99              | -0.5               | 0.8913                 | 8.02         | 10         | Pass         |
| 2437                 | 9.01               | 7.96              | -0.5               | 0.8913                 | 7.10         | 10         | Pass         |
| 2462                 | 9.34               | 8.59              | -0.5               | 0.8913                 | 7.66         | 10         | Pass         |

### For 802.11 g

| Test Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Nemeric) | E.I.R.P (mW) | Limit (mW) | Test Results |
|----------------------|--------------------|-------------------|--------------------|------------------------|--------------|------------|--------------|
| 2412                 | 9.16               | 8.24              | -0.5               | 0.8913                 | 7.35         | 10         | Pass         |
| 2437                 | 8.95               | 7.85              | -0.5               | 0.8913                 | 7.00         | 10         | Pass         |
| 2462                 | 9.44               | 8.79              | -0.5               | 0.8913                 | 7.83         | 10         | Pass         |

### For 802.11 n (20MHz)

| Test Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Nemeric) | E.I.R.P (mW) | Limit (mW) | Test Results |
|----------------------|--------------------|-------------------|--------------------|------------------------|--------------|------------|--------------|
| 2412                 | 9.07               | 8.07              | -0.5               | 0.8913                 | 7.19         | 10         | Pass         |
| 2437                 | 9.14               | 8.20              | -0.5               | 0.8913                 | 7.31         | 10         | Pass         |
| 2462                 | 9.08               | 8.09              | -0.5               | 0.8913                 | 7.21         | 10         | Pass         |

### For 802.11 n (40MHz)

| Test Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain (Nemeric) | E.I.R.P (mW) | Limit (mW) | Test Results |
|----------------------|--------------------|-------------------|--------------------|------------------------|--------------|------------|--------------|
| 2422                 | 8.36               | 6.85              | -0.5               | 0.8913                 | 6.11         | 10         | Pass         |
| 2437                 | 8.06               | 6.40              | -0.5               | 0.8913                 | 5.70         | 10         | Pass         |
| 2452                 | 8.09               | 6.44              | -0.5               | 0.8913                 | 5.74         | 10         | Pass         |

## 4. Conclusion

The EUT works on the 2.4G ISM band, according to KDB 447498 D01 v05 General RF Exposure Guidance, the SAR Test Exclusion Power Thresholds is 10mW. The max power of this device is 8.02mW < 10mW, so the SAR evaluation is not required.

.....End of Report.....