






# NS Technology Co., Ltd.

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|---|---|---|
| <b>Applicant:</b>   | ZIONCOM TECHNOLOGY LIMITED  |   |
| <b>Address:</b>   | Building A1~A2,lantian Science and Technology Park,Xinyu Road<br>Xinqiao Henggang Block Shajing Street,Baoan District,<br>Shenzhen City |   |
| <b>Manufacturer:</b>  | ZIONCOM TECHNOLOGY LIMITED  |   |
| <b>Address:</b>   | Building A1~A2,lantian Science and Technology Park,Xinyu Road<br>Xinqiao Henggang Block Shajing Street,Baoan District,<br>Shenzhen City |   |
| <b>E.U.T:</b>   | Wireless Router   |   |
| <b>Model Number:</b>  | IP0494; RG300EX Lite  |   |
| <b>Report Number:</b>   | NSE-F10044646   |   |
| <b>Trade Name:</b>  | -----   |   |
| <b>Operating Frequency:</b>   | IEEE802.11b 2412~2462MHz; IEEE802.11g 2412~2462MHz<br>IEEE802.11n HT20:2412~2462MHz;IEEE802.11n HT40:2422~2452MHz                       |   |
| <b>Date of Receipt:</b>   | Mar.4, 2010   | <b>Date of Test:</b> Mar. 10~Mar . 28, 2010   |
| <b>Test Specification:</b>  | 47 CFR FCC Part 2 Subpart J, section 2.1091   |   |
| <b>Test Result:</b>   | The equipment under test was found to be compliance with the requirements of the standards applied.                                     |   |
|   | <b>Issue Date: Mar.30, 2010</b>   |   |
| <b>Tested by:</b>   | <b>Reviewed by:</b>   | <b>Approved by:</b>   |
|    |    |  |
| Jade/ Engineer  | Iceman Hu / Supervisor  | Steven Lee / Manager  |
| <b>Other Aspects:</b>   | None.   |   |
| <i>Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested</i>  |   |   |
| <i>This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd.</i> |   |   |



## Maximum Permissible Exposure

### 1 Applicable Standard

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 limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

#### (a) Limits for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density(S) (mW/cm <sup>2</sup> ) | Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|--|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                 | 6  |
| 3.0-30                | 1842/f                            | 4.89/f                            | (900/f)*                               | 6  |
| 30-300                | 61.4                              | 0.163                             | 1.0                                    | 6  |
| 300-1500              |                                   |                                   | F/300                                  | 6  |
| 1500-100000           |                                   |                                   | 5                                      | 6  |

#### (b) Limits for General Population / Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density(S) (mW/cm <sup>2</sup> ) | Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|--|
| 0.3-1.34              | 614                               | 1.63                              | (100)*                                 | 30   |
| 1.34-30               | 824/f                             | 2.19/f                            | (180/f)*                               | 30   |
| 30-300                | 27.5                              | 0.073                             | 0.2                                    | 30   |
| 300-1500              |                                   |                                   | F/1500                                 | 30   |
| 1500-100000           |                                   |                                   | 1.0                                    | 30   |

Note: f=frequency in MHz; \*Plane-wave equivalent power density

### 2 MPE Calculation Method

$$E \text{ (V/m)} = (30 * P * G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = (30 * P * G) / (377 * d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.



### 3 Calculated Result and Limit

| Mode              | CH           | Output power (dBm) | Output power (mW) | Antenna Gain (dBi) | MPE estimation result (mW/cm <sup>2</sup> ) at 20cm | Limit of MPE Estimation (mW/cm <sup>2</sup> ) | Test result |
|-------------------|--------------|--------------------|-------------------|--------------------|---|---|-------------|
| IEEE 802.11b      | CH1:2412MHz  | 17.87              | 61.24             | 5                  | 0.0385  | 1   | Compiles    |
|                   | CH6:2437MHz  | 17.94              | 62.23             | 5                  | 0.0391  | 1   | Compiles    |
|                   | CH11:2462MHz | 17.59              | 57.41             | 5                  | 0.0361  | 1   | Compiles    |
| IEEE 802.11g      | CH1:2412MHz  | 17.29              | 53.58             | 5                  | 0.0337  | 1   | Compiles    |
|                   | CH6:2437MHz  | 17.42              | 55.21             | 5                  | 0.0347  | 1   | Compiles    |
|                   | CH11:2462MHz | 17.31              | 53.83             | 5                  | 0.0338  | 1   | Compiles    |
| IEEE 802.11n HT20 | CH1:2412MHz  | 16.09              | 40.64             | 5                  | 0.0255  | 1   | Compiles    |
|                   | CH6:2437MHz  | 16.12              | 40.93             | 5                  | 0.0257  | 1   | Compiles    |
|                   | CH11:2462MHz | 15.97              | 39.54             | 5                  | 0.0249  | 1   | Compiles    |
| IEEE 802.11n HT40 | CH1:2422MHz  | 15.88              | 38.73             | 5                  | 0.0243  | 1   | Compiles    |
|                   | CH4:2437MHz  | 15.84              | 38.37             | 5                  | 0.0243  | 1   | Compiles    |
|                   | CH7:2452MHz  | 15.49              | 35.40             | 5                  | 0.0223  | 1   | Compiles    |