






# NS Technology Co., Ltd.

<b>Applicant:</b>	ZIONCOM TECHNOLOGY LIMITED	
<b>Address:</b>	Building A1~A2,lantian Science and Technology Park,Xinyu Road Xinqiao Henggang Block Shajing Street,Baoan District, Shenzhen City	
<b>Manufacturer:</b>	ZIONCOM TECHNOLOGY LIMITED	
<b>Address:</b>	Building A1~A2,lantian Science and Technology Park,Xinyu Road Xinqiao Henggang Block Shajing Street,Baoan District, Shenzhen City	
<b>E.U.T:</b>	Wireless Router	
<b>Model Number:</b>	IP04103; RG300EX Lite	
<b>Report Number:</b>	NSE-F10034600	
<b>Trade Name:</b>	-----	
<b>Operating Frequency:</b>	IEEE802.11b 2412~2462MHz; IEEE802.11g 2412~2462MHz 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 . 24, 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.26, 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	17.25	53.09	5	0.0334	1	Compiles
	CH6:2437MHz	18.05	63.83	5	0.0401	1	Compiles
	CH11:2462MHz	17.84	60.81	5	0.0382	1	Compiles
IEEE 802.11g	CH1:2412MHz	18.01	63.24	5	0.0398	1	Compiles
	CH6:2437MHz	17.30	53.70	5	0.0338	1	Compiles
	CH11:2462MHz	16.68	46.55	5	0.0292	1	Compiles
IEEE 802.11n HT20	CH1:2412MHz	15.26	33.57	5	0.0211	1	Compiles
	CH6:2437MHz	15.61	36.39	5	0.0229	1	Compiles
	CH11:2462MHz	15.34	34.20	5	0.0215	1	Compiles
IEEE 802.11n HT40	CH1:2422MHz	14.91	30.97	5	0.0195	1	Compiles
	CH4:2437MHz	14.85	30.55	5	0.0192	1	Compiles
	CH7:2452MHz	14.19	26.24	5	0.0165	1	Compiles