RF Exposure Evaluation Declaration

Product Name ： Wireless Access Point

Model No. ： ZG-7600H, ZG-7600H-P

FCC ID ： UDKZG7600HPAH

Applicant ： Nanjing Z-COM Wireless Co., Ltd

Address ： 168 Long Pan Zhong Road, Jiangsu Software Park, Suite 118 Nanjing, China

Date of Receipt ： 2008/02/18

Issued Date ： 2008/03/31

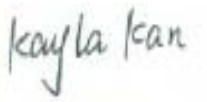
Report No. ： 083S004-RF-US

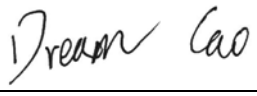
Test Report Certification

Issued Date : 2008/03/31
Report No. : 083S004-RF-US

QuieTek

Product Name	:	Wireless Access Point
Applicant	:	Nanjing Z-COM Wireless Co., Ltd
Address	:	168 Long Pan Zhong Road, Jiangsu Software Park, Suite 118 Nanjing, China
Manufacturer	:	Nanjing Z-COM Wireless Co., Ltd
Model No.	:	ZG-7600H, ZG-7600H-P
FCC ID	:	UDKZA4000
Rated Voltage	:	AC 120V/60Hz
EUT Voltage	:	AC 100-240 V / 50-60 Hz
Trade Name	:	ZDC
Applicable Standard	:	FCC OET 65
Test Result	:	Complied
Performed Location	:	SuZhou EMC laboratory No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392

Documented By : 
(Kayla Kan)

Reviewed By : 
(Dream Cao)

Approved By : 
(Murphy Wang)

Laboratory Information

We , **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

Taiwan R.O.C.	**:**	**BSMI, DGT, CNLA**
Germany	**:**	**TUV Rheinland**
Norway	**:**	**Nemko, DNV**
USA	**:**	**FCC, NVLAP**
Japan	**:**	**VCCI**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://tw.quietek.com/modules/myalbum/
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

NVLAP Lab Code : 200347-0 | 1313

LinKou Testing Laboratory :

No. 5, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C.
TEL : +886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

NVLAP Lab Code: 200533-0 | 0914

Suzhou Testing Laboratory :

No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China
TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

NVLAP Lab Code : 200743-0 | 1596

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.
The temperature and related humidity: 18℃and 78％ RH.

1.3. Test Result of RF Exposure Evaluation

Product	:	Wireless Access Point
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-3
Test Mode	:	Mode 1: Transmitter by 802.11b

Antenna Gain:

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 5.0 dBi or 3.16 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
01	2412.00	206.5380	0.129936
06	2437.00	218.2730	0.137319
11	2462.00	217.2701	0.136688

Note:

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm2.

Product	:	Wireless Access Point
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-3
Test Mode	:	Mode 2: Transmitter by 802.11g

Antenna Gain:

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 5.0 dBi or 3.16 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
01	2412.00	85.1138	0.053546
06	2437.00	104.9542	0.066028
11	2462.00	83.1764	0.052328

Note:

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm2.

Product	:	Wireless Access Point
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-3
Test Mode	:	Mode 3: Transmit by 802.11 super g

Antenna Gain:

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 5.0 dBi or 3.16 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
01	2412.00	103.0386	0.064823
06	2437.00	91.6220	0.057641
11	2462.00	95.0605	0.059804

Note:

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm2.

Product	:	Wireless Access Point
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-3
Test Mode	:	Mode 4: Transmit by 802.11 turbo g

Antenna Gain:

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 5.0 dBi or 3.16 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Channel Frequency (MHz)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)
06	2437.00	150.3142	0.094565

Note:

The power density Pd (4th column) at a distance of 20 cm calculated from the Friis transmission formula is far below the limit of 1 mW/cm2.