RF Exposure Evaluation Declaration

Product Name	：	54Mbps Wireless ADSL2 + Modem Router
Model No.	：	DG834GU v5, DG834GU2 v5, DG834G v5, DG834G2 v5, MBR624GU, MBR624GU2, DG834GUM2 v5, DG834GUSP v5, DG834GUS2 v5, DG834GUM v5
FCC ID	：	PY308200087

Applicant	：	Netgear Inc.
Address	：	4500 Great America Pky, Santa Clara, CA 95054, USA

Date of Receipt	：	Nov. 13, 2009
Issued Date	：	Dec. 22, 2009
Report No.	：	09BS062R-RF-US
Report Version	：	V1.0

Test Report Certification

Issued Date: 2009/12/22
Report No.: 09BS062R-RF-US

QuieTek

Product Name	:	54Mbps Wireless ADSL2 + Modem Router
Applicant	:	Netgear Inc.
Address	:	4500 Great America Pky, Santa Clara, CA 95054, USA
Manufacturer	:	Ambit Microsystems (Shanghai) Ltd.
Address	:	No. 1925, Nanle Road Songjiang Export Processing Zone Shanghai China, Post Code: 201613
Model No.	:	DG834GU v5, DG834GU2 v5, DG834G v5, DG834G2 v5, MBR624GU, MBR624GU2, DG834GUM2 v5, DG834GUSP v5, DG834GUS2 v5, DG834GUM v5
FCC ID	:	PY308200087
EUT Voltage	:	12Vdc
Trade Name	:	Netgear
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

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Approved By	:	Dream Cao (Engineering Manager: Dream Cao)

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

TAF Testing Laboratory 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

TAF Testing Laboratory 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

TAF Testing Laboratory 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	:	54Mbps Wireless ADSL2 + Modem Router
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2dBi or 1.58 in linear scale.

Output Power into Antenna & RF Exposure Evaluation Distance:

Frequency Range	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm2)	Power Density Limit (mW/cm2)
2412~2462	124.452	0.039	1

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.