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

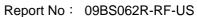
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by CNLA, NVLAP, NIST or any agency of the Government.

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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

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Approved By : Preum Cas

(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.















LinKou Testing Laboratory:















Suzhou Testing Laboratory:















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° C 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.