



# RF EXPOSURE REPORT

**REPORT NO.:** SA120529C25A

**MODEL NO.:** NVG589

**FCC ID:** GZ5NVG589

**RECEIVED:** Sep. 19, 2012

**TESTED:** Sep. 26 ~ Oct. 25, 2012

**ISSUED:** Nov. 02, 2012

**APPLICANT:** Motorola, Inc

**ADDRESS:** 1101 Marina Village Parkway, Alameda,  
California, United States

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

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## TABLE OF CONTENTS

RELEASE CONTROL RECORD .....	3
1. CERTIFICATION .....	4
2. RF EXPOSURE.....	5
2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	5
2.2 MPE CALCULATION FORMULA .....	5
2.3 CLASSIFICATION .....	5
2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER.....	5



## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120529C25AA	Original release	Nov. 02, 2012



# 1. CERTIFICATION

**PRODUCT:** VDSL Gateway  
**MODEL NO.:** NVG589  
**BRAND:** Motorola  
**APPLICANT:** Motorola, Inc  
**TESTED:** Sep. 26 ~ Oct. 25, 2012  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**STANDARDS:** FCC Part 2 (Section 2.1091)  
**FCC OET Bulletin 65, Supplement C (01-01)**  
**IEEE C95.1**

The above equipment (Model: NVG589) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :** Polly Chien , **DATE :** Nov. 02, 2012  
Polly Chien / Specialist

**APPROVED BY :** Ken Liu , **DATE :** Nov. 02, 2012  
Ken Liu / Manager

## 2. RF EXPOSURE

### 2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

### 2.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
22.62	2.5	20	0.065	1