## RF EXPOSURE REPORT

REPORT NO.: SA130110C20
MODEL NO.: DIR-820L
FCC ID: KA2IR820LA1
RECEIVED: Jan. 10, 2013
TESTED: Jan. 11 ~ Jan. 23, 2013
ISSUED: Feb. 07, 2013

## APPLICANT: D-Link Corporation

ADDRESS: 17595 Mt. Herrmannm, Fountain Valley, California, United States

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

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

## 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 |
| :--- | :--- | :--- |
| SA130110C20 | Original release | Feb. 07,2013 |

## 1. CERTIFICATION

PRODUCT: Wireless AC1000 Dual Band Cloud Router MODEL NO.: DIR-820L<br>BRAND: D-Link<br>APPLICANT: D-Link Corporation<br>TESTED: Jan. 11 ~ Jan. 23, 2013<br>TEST SAMPLE: ENGINEERING SAMPLE<br>STANDARDS: FCC Part 2 (Section 2.1091)<br>FCC OET Bulletin 65, Supplement C (01-01)<br>IEEE C95.1

The above equipment (model: DIR-820L) 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.


## 2. RF EXPOSURE

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

| FREQUENCY <br> RANGE (MHz) | ELECTRIC FIELD <br> STRENGTH (V/m) | MAGNETIC FIELD <br> STRENGTH (A/m) | POWER DENSITY <br> $\left(\mathrm{mW} / \mathrm{cm}^{2}\right)$ | AVERAGE TIME <br> (minutes) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE |  |  |  |  |  |  |
| $300-1500$ | $\ldots$ | $\ldots$ | F/1500 | 30 |  |  |
| $1500-100,000$ | $\ldots$ | $\ldots$ | 1.0 | 30 |  |  |

$\mathrm{F}=$ Frequency in MHz

### 2.2 MPE calculation Formula

$\mathrm{Pd}=\left(\right.$ Pout $\left.{ }^{*} \mathrm{G}\right) /\left(4^{\star} \mathrm{pi}^{\star} \mathrm{r}^{2}\right)$
where
$\mathrm{Pd}=$ power density in $\mathrm{mW} / \mathrm{cm}^{2}$
Pout = output power to antenna in mW
$\mathrm{G}=$ gain of antenna in linear scale
$\mathrm{Pi}=3.1416$
$R=$ 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 20 cm away from the body of the user. So, this device is classified as Mobile Device.
2.4 Calculation result of maximum conducted power

| FREQUENCY <br> BAND <br> $(\mathrm{MHz})$ | MAX POWER <br> $(\mathrm{dBm})$ | ANTENNA <br> GAIN <br> $(\mathrm{dBi})$ | DISTANCE <br> $(\mathrm{cm})$ | POWER <br> DENSITY <br> $\left.(\mathbf{m W / c m})^{2}\right)$ | LIMIT <br> $\left(\mathrm{mW} / \mathrm{cm}^{2}\right)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2412-2462$ | 29.28 | 0 | 20 | 0.169 | 1 |
| $5180-5240$ | 16.91 | 0 | 20 | 0.010 | 1 |
| $5745-5825$ | 27.26 | 0 | 20 | 0.106 | 1 |

