

## RF Exposure Report

**Report No.:** SA130812C17E

**FCC ID:** NKR-O1

**Test Model:** DNUB-O1

**Received Date:** Feb. 26, 2016

**Test Date:** Mar. 12 ~ Mar. 18, 2016

**Issued Date:** Mar. 22, 2016

**Applicant:** Wistron NeWeb Corp.

**Address:** 20 Park Avenue II, Hsinchu Science Park, Hsinchu 30076, Taiwan, R.O.C.

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

**Lab Address:** No. 47-2, 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 Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA130812C17E	Original release.	Mar. 22, 2016

## 1 Certificate of Conformity

**Product:** 11abgn 2x2 USB Module

**Brand:** OKI

**Test Model:** DNUB-O1

**Sample Status:** Engineering sample

**Applicant:** Wistron NeWeb Corp.

**Test Date:** Mar. 12 ~ Mar. 18, 2016

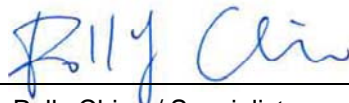
**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D03 (January 17, 2014)

IEEE C95.1

The above equipment 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 / Specialist

**Date:**

Mar. 22, 2016

**Approved by :**



Ken Liu / Senior Manager

**Date:**

Mar. 22, 2016

## 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)
Limits For General Population / Uncontrolled Exposure				
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**.

### 3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	26.69	3.08	20	0.189	1
5180-5240	16.35	4.85	20	0.026	1
5260-5320	16.54	5.44	20	0.031	1
5500-5700	16.54	6.18	20	0.037	1
5745-5825	23.73	7.38	20	0.257	1

\*2.4GHz and 5GHz can't transmit simultaneously.

#### 2.4GHz Band:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 3.08\text{dBi}$

#### 5GHz Band:

##### 5180-5240MHz:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.85\text{dBi}$

##### 5260-5320MHz:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.44\text{dBi}$

##### 5500-5700MHz:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.18\text{dBi}$

##### 5745-5825MHz:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 7.38\text{dBi}$

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